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THE MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

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Farm Work for December.

The closing month of the year is generally regarded as one of comparative leisure, but to the provident farmer it really is a very busy one, and requires more thought and attention to many minor, though indispensable matters, than the other months of winter. Much work may be done, if the weather be favorable, which greatly facilitates spring operations, that often come suddenly and oppressively. If this proves an open month much plowing can be done with great advantage to the soils plowed, and submitted to the action of frost. Wood for fuel is to be cut, and timber for fences and other farm requirements. Wood is to be hauled for the winter's fuel. Compost heaps are to be made. Shelters for all kinds of stock to be built or put in order, if this important work was not done, as it ought to have been, last month. Ditching and under draining to be carried on. Fences around the grain fields are to be put in such order as to secure the young grain from being poached on by the stock. Hogs are to be fattened and pork packed. Beef cattle to be well attended as well as sheep intended for the shambles. Milch cows to be warmly housed and provided with rich, milk-giving food in variety, that is to say, a supply of bran, mill-feed, hay, cord-fodder, ensilage, corn and cob meal and cotton seed meal, a full supply of salt, roots, and a hay cutter as well as a root cutter—all these should be got together this month for use during winter.

The ice-pond is to be fixed and ice-house put in nice condition that the first good freeze may be availed of to secure a full supply of this needful luxury.

The corn crop should all be housed this month, if not already done, and the fodder left in the field well secured in large shocks, besides what has been hauled and put in heaps near the feeding places. If possible, it should have been, after the corn was husked, tied in convenient

sized bundles, and a large quantity hauled and put under cover for the convenience of feeding the stock in bad weather.

The farming utensils are all to be gathered up, repaired, painted or oiled and put under cover, to be protected against the weather and to be ready for use whenever wanted.

See that your sleighs and sleds are in good condition for use when the snows fall.

When all these things are done, and many other smaller matters, such as out houses made tight and whitewashed, poultry houses made comfortable, and the pens for the stock hogs well supplied with litter, a quantity of dry leaves secured for bedding purposes and the barn-yard deeply littered with the rubbish found on the farm, &c. When, we say, all these things are attended to, the farmer can feel that he is prepared for the New Year and with pleasure contemplate the coming Christmas, having a clear title to enjoy its festivities to the fullest extent.

Garden Work for December.

Not much to be done this month in the open garden work. Continue to clear up and put in order. Dig deep the clayey spots and leave them in the rough state for the frost to act on the stiff soil as a pulverizer. Make compost heaps. Mulch or cover with pine or cedar brush all tender plants, and such as spinach, lettuce, endive, strawberry plants, &c.

Lettuce—In frames for early use should have air by raising the sash slightly each day when it is not too cold. Stir the earth occasionally and water the plants when necessary with water barely warm.

Cabbage and Cauliflower—In cold frames should have the same treatment as lettuce.

If the garden be a stiff clay soil, cover it this month with two inches of pure sand, which, when well worked in the soil, will make a nice, loamy soil, easily worked and far more produc-

tive, and suited to most plants, some of which will not grow in a tenacious soil.

If there be reason to suppose that the garden holds water and the soil has become hard and sour because of excess of water, by all means embrace the leisure afforded this month to underdrain it and carry off all surplus and unnecessary moisture. A thorough drainage of a garden is equal to a heavy manuring and far more enduring in its beneficial effects.

If the ground be not too deeply frozen, shrubbery and fruit trees can be set this month. Of course it is in the Middle States rather late, but we have set them out this month instead of "heeling them in," with good effect. Indeed they have done as well as if planted in October, although, as a rule, we would not recommend such late planting in the region of Maryland.

For the Maryland Farmer.

Care of Permanent Meadows.

The term, meadow, is used in the strict English sense, meaning any mowing lands; either those that are occasionally brought under cultivation, or those bordering upon streams of water which maintain a uniform fertility from the overflow of water, or that which is brought down from the hillsides.

Meadows that are self-supporting are a mine of wealth to the farmer, for they not only produce annual crops without taxing the farm for manures, but furnish such crops to be converted into manure to assist in fertilizing other and less favorable portions of the farm.

Were all meadows of the character mentioned above, there would be little occasion for care, further than maintaining fences and protecting from injury; but, unfortunately, upon our New England farms with their diversity of soil, in character and condition, together with the interspersing of hill and vale, more or less care is rendered necessary in order to maintain them. The average upland meadow of our farms, under ordinary usage, will in the course of a few years become so deteriorated as to render it necessary that its fertility be improved.

There may be causes for this, and if so, these should be removed. One is the condition of pasturage, which is much poorer than it ought to be. A poor pasture renders the temptation to turn cattle upon the meadows, after mowing, too strong for

resistance, under the desire to increase the flow of milk, or to fatten an animal; but no course can be pursued that is more disastrous to the welfare of meadows than to allow a herd of cattle to graze them closely late in the fall, so that the roots of the grass are left unprotected through the winter. If mowing is, as it always should be, done early in the season there is vastly less waste to the land, and an opportunity is afforded for a growth of aftermath, which may be removed in season for the growth of still enough to protect the grass roots, or a portion of it may be fed off, leaving amply for protection; in either of which cases the field will "hold out" much longer; but under most circumstances it is better to improve the condition of pasturage, and then supplement fall feed by the use of fodder corn or some similar forage crop. Many portions of our New England farms are rough; the soil filled with rocks and boulders of various sizes; to facilitate the use of labor-saving machines, these have been removed to a considerable extent during cultivation, and so, when a field that has been seeded to grass, gives evidence of a lack of fertility, there is a dread of breaking up the soil because of the necessity of repeating the exercise of removing displaced stones.

There is no doubt but that the best policy, therefore, is to renovate meadows by some means that will avoid bringing under the plow, except in those favored portions of our earth, so far as cultivation is concerned, where stones are unknown; this can be accomplished by means of a top-dressing, either of ashes, manure, or commercial fertilizers, and two things are gained thereby; first, the plowing up and reseedling with the removal of the stones is avoided; and second, a much smoother and firmer soil is secured, which in the use of haying machines is of no inconsiderable importance.

It is also believed by many that by pursuing the above course, a finer and better quality of hay is secured; this is undoubtedly correct, and is of itself a sufficient reason for a continued maintenance of meadows. We have seen meadows bearing crops of hay of the most excellent quality, that had been maintained for forty years by means of an occasional top-dressing of manure. Our own experience is very strongly in favor of this course,

having seen fields of light burden of hay, made to be large producers, and that by giving a liberal dressing of manure and a slight application of grass seed.

The most appropriate time to apply manure is in the early fall, or in fact as soon as the hay crop is removed unless there are signs of dry weather, as it is desirable that the application be made just before a shower or rain storm so that the fertilizer may be at once brought in contact with the roots of the grass. Ashes or commercial fertilizers may be applied at any time just before a shower, as the whole is then conveyed into the soil. But unless applied in the fall or early spring but little benefit will result to the first succeeding crop. Where manure is used it should be well rotted and thoroughly disintegrated so as to spread evenly over the surface. In early spring, if there is any appearance of lumps, a bush may be dragged over the field, which will reduce them. A trial of this mode of maintaining meadows will work a change in farm management.

WILLIAM H. YEOMANS.

Columbia, Conn.

Agricultural Essays.—The Soil—Continued.

For the convenience of the reader, we reproduce the composition of fertile soil, as given in a late issue of this paper.

Organic matter.....	9.7
Silica.....	64.8
Alumina.....	5.7
Lime.....	5.9
Magnesia.....	.9
Oxide iron.....	6.1
Oxide manganese.....	.1
Potash.....	.2
Soda.....	.4
Chlorine.....	.2
Sulphuric acid.....	.2
Phosphoric acid.....	.4
Loss during analysis, &c.....	5.4

100

Having already commented on the functions of alumina and organic matter in the soil, we proceed now to notice other points.

Scarcely any two soils will show identity of composition; nor do we mean to say that all fertile soils conform to the standard above given. But a soil, to be fertile, must contain, not necessarily in the same proportions, but to a sufficient extent, and in available forms, all the constituents

given in our table. For all plants take up from the soil, but in different proportions, potash, soda, lime, magnesia, oxide iron, oxide manganese, sometimes, silica, chlorine, sulphuric and phosphoric acids. Every soil, then, to be productive, must contain all these substances. Those constituents which exist in the soil in small quantities are exactly those which demand the special notice and care of the farmer. This is so because they are most liable to exhaustion for the double reason: (1) Because they are found to so small an extent in the soil, and (2), because upon them the growing plant makes its heaviest demands. Let us look at this matter a little more in detail. The amount of phosphoric acid is given at 0.4 per cent. or four-tenths of a pound in 100 pounds of dry soil, and very few soils contain even so much as this. Is not this too small an amount of phosphoric acid to arrest serious attention? We reply by saying that the amount of phosphoric acid in the soil is exceedingly small, but at the same time enormously large. Relatively small, absolutely large. The soil of an acre 12 inches deep will weigh, in round numbers, 4,000,000 pounds, and will contain at the rate of four-tenths of a pound of phosphoric acid in 100 pounds soil—0.4 per cent.—16,000 pounds or 8 tons of phosphoric acid. To add this much phosphoric acid to the soil would demand per acre a little more than 17 tons of pure bone phosphate. A soil, then, containing no phosphoric acid, is agriculturally worthless. To attempt to supply four-tenths of one per cent. of phosphoric acid to such a soil would cost more money than the value of the heaviest yield at the highest prices of white Burley tobacco in the limestone regions of Kentucky. A soil containing no potash, no soda, no chlorine, no lime, no sulphuric acid, no phosphoric acid, all of which added together make only (see table) seven per cent. of the weight of the soil, is no soil at all; it is simply a desert.

But, as we have remarked, the plant makes its heaviest demands on those constituents of the soil, which constitute such a small part of its weight. For instance, the ash of the grain of wheat contains 49 per cent. of phosphoric acid; in other words, wheat and the cereals generally take up from the soil about as much of phosphoric acid as of all the other substances

furnished by the soil put together. So, also, more than half the weight (51 per cent.) of the ash of potatoes is potash; nearly two-thirds (64 per cent.) of tobacco ash is made up of potash and lime. We might continue the illustration to any extent, showing that plants make upon the soil the heaviest demands for those substances which it contains in the smallest proportions. Hence the intelligent farmer seeks to add these substances to the soil by the application of various fertilizers, particularly commercial fertilizers; and aims, by deep plowing and fallow crops, to hasten the disintegration of mineral masses, and bring their soluble constituents to the surface for admixture with the soil proper.

In the light of these facts, we see the philosophy of a rotation of crops. If a soil be cultivated for a succession of seasons in the cereals, there will be an exhaustion, greater or less, of phosphoric acid; and the constant cultivation of tobacco on the same land will cause a deficiency of potash and lime in the soil. What is the true indication, and what sort of crops should follow each other in rotation? Those that make demands as different as possible upon the soil, so that one or two constituents shall not be subjected to special strain year after year. For instance, tobacco will take up potash and lime largely and very little phosphoric acid. Let it be followed by wheat, which will demand phosphoric acid largely, and very little potash and lime. By the time the land is again planted in tobacco, the special exhaustion of potash and lime caused by the first tobacco crop has been repaired by the disintegration of the purely mineral matter of the soil, or by addition of lime and potash in the form of manure, or, as is usually the case, by the combination of these processes.

We see also why a soil, if let alone, always reverts to its natural condition. Let us consider two areas: One naturally poor, has been so fertilized that it produces five barrels corn to the acre; the other, naturally rich, has been so exhausted by constant cultivation, that, though once producing ten, it also now produces only five barrels. The productive capacity of each is now the same; are the two tracts of equal value? By no means. The tract originally poor, if let alone, will fall back

to its original barrenness; the tract, naturally rich, if let alone, will regain its original fertility. The former has to be constantly nursed and doctored that it may hold its own; the latter without assistance except from the recuperating powers of nature, will become rich again? Why so. A soil is only disintegrated rock mixed with variable amounts of organic matter. This rock underlying the soil is always breaking down. It is reduced by the plow, by the roots of plants, by the solvent power of water, by the disruptive effect of freezing water, by alterations of heat and cold, and by the chemical action of the atmosphere. The composition of the soil depends upon the composition of the underlying rock. If the rock contain, in sufficient quantities, all the necessary constituents of a fertile soil, its reduction and disintegration will produce a fertile soil. By exhaustive cultivation we may remove these constituents more rapidly than they can be set free, and hence reduce the productive capacity of the soil, or make it poor. But if we will only stay our hands, the rock, crumbling under the silent action of the great forces of nature, will again give us a soil as rich as it was when its virgin bosom was first torn and tortured by the plow.

The soil, naturally poor, made rich by artificial means, left to itself, reverts also of necessity to its original condition. The underlying rock is deficient in some essential constituent of a fertile soil, perhaps phosphoric acid. To enable it to bring a good crop, these substances must be furnished in putrescent or commercial manures. You apply the manure, the crop comes. All right, you say, your land is now rich. Yes, rich for a year or two, rich as long as your manures supply the deficient constituents. Simply let it alone, and it becomes poor again. The manure is exhausted, and the rock, as it disintegrates, cannot supply, for it does not contain, sufficient quantities of those essential constituents, potash and phosphoric acid.

Hence a piece of land, naturally rich, but now poor from drastic treatment, will show the effect for many years of a liberal application of manure. With this help, the natural disintegration of the mineral matter of the soil and subsoil supplies to succeeding crops all the inorganic food they require. But if the soil be formed from poor rock, the effect of the same ma-

nure will be far less permanent, for successive crops must depend, as to certain mineral constituents of plants, chiefly upon manures and little upon the soil.

To know then the history of a tract of land is an important factor in the determination of its value. If it has been nursed from original infertility up to respectable productiveness by heavy expenditures of money for manures, it is nevertheless far less valuable than a tract whose productive capacity was originally twice as great, but has been reduced to the same point by exhaustive tillage. Land, how poor soever now, if originally rich, constantly tends to regain its own, and with a little extra help and kind treatment, will make sensible advancement every year, and will soon accomplish the result. Land, however, which may be rich now by manurial applications, but was originally poor, will demand all the time the same generous treatment, or revert to its original barrenness. Thus we see that two given areas may be equally productive now, and yet possess altogether different values.

The failure to notice this distinction, to trace the history of a farm, has led to grievous blunders and irreparable disaster, to buy poor land once rich is a wise investment, to buy at moderate rates rich land that was originally poor, may be judicious under particular circumstances; but to buy at almost any price land that is poor and was born poor, is simply to get possession of a money-sink.—*Religious Herald*.

For the Maryland Farmer.

Woodlawn Farmers' Club.

This society is composed of many farmers, living in Virginia and the District of Columbia, and holds regular monthly meetings. On invitation of Col. Wm. H. Chase, the society held its October meeting at his residence in this city, (Washington,) where a very pleasant time and dinner were enjoyed, by a houseful of country and city farmers.

The club met on Saturday, the first day of October, at the residence of Col. Wm. H. Chase, Washington, D. C. Robert F. Roberts presided, with N. W. Pierson secretary. Agreeably to appointment, Dr. S. A. H. McKim read an instructive paper on "Soils"—method of restoring them, and preventing the washing away of their fer-

tilizing properties. He advocated the system of green manuring, with rye, clover, buckwheat and other rank or fast growing crops, and then plowing them under, using ashes, lime, and other fertilizers to stimulate a good growth of these vegetables; and of soiling stock and supplying manure.

Capt. W. H. Snowden endorsed the advice given in the essay in regard to returning every available refuse of the farm and, especially, of the barn yard, to the soil again; giving his views at considerable length and with great earnestness in favor of green-soiling stock.

Dr. E. P. Howland said that exclusive soiling would induce disease in animals that would render their products unfit for human food, when kept too much confined, without exercise and ventilation, in stalls.

Col. D. S. Curtiss said he would give some facts in regard to the cultivation of the soil that were not his theories alone, but well established practical principles in agricultural science; one of which was, that the proper mechanical condition of the soil was of more consequence than the quality; that fine, deep tillage and pulverization, and thorough drainage were more important even than high manuring with shallow tillage.

Col. Chase said that Dr. McKim had told us, in his essay, how to restore the fertility of the soil, but had not given us the method of retaining the soil and its fertility from washing away, after being supplied. He had seen in Alabama cotton fields a system which, he thought, was ahead of our system; in preventing the soil from washing its valuable properties into the creeks and rivers, by plowing around the hillsides and leaving a terrace of sod at suitable distance to catch and hold the wash from the cultivated ground.

E. E. Mason said that in regard to soiling cattle each farmer should be governed by the peculiar circumstances of his farm and surroundings; one rule could not be equally applicable to all. He also remarked that well established practices, as well as theories, had been thwarted, and the usual results from a certain course pursued, completely reversed this summer, in some cases, and crops.

After some further discussion dinner was announced; after which some business was transacted, and the club adjourned, all well pleased with the meeting. D. S. C.

For the Maryland Farmer.

To Lynchburg and Return.

Early last September we availed ourselves of the opportunity of visiting some parts of Virginia, to see the farming and mineral lands of that State; but a press of business matters at home necessitated our return so soon, our stay was necessarily brief and the ground covered but small. From Philadelphia we reached Baltimore by rail. At Baltimore, Mr. Foster, of the Richmond & York River Line of steamers, tendered us the courtesy of his line, and a pleasanter or more desirable route from Baltimore to Richmond cannot be had, for, when we add to the fine trip down the Bay and up the York River, the fact that the steamers are large and commodious, the staterooms neatly fitted up and comfortable, and the table supplied with all that any reasonable man can wish for, with attentive waiters, and last but not least, affable officers, there are sufficient reasons for preferring this water route to one by rail, especially during warm or moderate weather. The amount of miscellaneous freight and merchandise carried by this line is simply enormous, and shows that the demand for Southern goods of all kinds must be again approaching what it was in ante-bellum times, and that merchants and shippers realize the facilities that Baltimore offers as a shipping point.

While on the boat, we were favored by at least a peep at Yorktown, which, ere this is in type, will have been the scene of the centennial anniversary of the surrender of Cornwallis. What we saw at the landing along the river did not impress us very forcibly of the celebration to be, for it had a very ordinary appearance, with the new wharfage slowly progressing. As the boat stopped but a short time we had no opportunity of seeing the town, which lays just beyond the brow of the hill near the river, the tops of a number of the houses being, however, visible. A run of some 12 miles from here brought us to West Point, where the York river makes connections with the railroad running to Richmond some 40 miles distant. The fare on this railroad, from West Point to Richmond, is high compared with the charges on our northern roads, while the accommodations are proportionately poor. The road runs through much uncultivated

land, some of which is well timbered with large growth, tho' the most of it is yet too young to be profitable.

A few miles from West Point we come very unexpectedly, to us, upon one of the finest places in the State, perhaps, and equalled but by few in others, we think. It is "Lester Manor," owned by Mr. J. B. Davis, a wealthy gentleman of Richmond, Va., contains several hundred acres, and everything, from the numerous buildings to the young, thrifty orchards of apple, pear and peach and well cultivated fields, shows system and order of business. On this large place is raised the large quantities of fruits and vegetables which are annually canned by Mr. Davis in Richmond, where he has large canning establishments, employing a large number of hands. His brands of canned goods are well known everywhere and highly appreciated. Just before reaching Richmond, we passed near the place called "Seven Pines," where there was such severe fighting, during our late war, before the surrender of Richmond. When we arrived at the latter named city we paid our respects to Mr. Richard Irby, the general agent of the bureau of immigration, to whose geniality and efficiency we are greatly indebted for valuable information, especially so in regard to directing our movements so as to accomplish the most good in the shortest time.

At 3:30 P. M. of the day of our arrival in Richmond we took the train on the Richmond and Alleghany Railroad for Lynchburg, to see the lands laying along the line of that road, combining, as they do, much valuable mineral and farming land, which capitalists are fast appreciating. This railroad lies directly on the line of the James river, using the old tow-path of the once famous Richmond and Kanawha Canal as a road bed. This canal was started during Washington's time, who, we believe, was president of the concern for quite awhile. Scarcely beyond the city limits we come in sight of immense deposits of granite, several quarries of which are in successful operation, some by northern capitalists. One of these quarries employs a large number of hands and large machinery, supplying not merely Richmond with paving and other stone, but many of our northern cities draw their supplies from this quarter, with no prospect of the supply being exhausted, either

in quantity or fine quality, for a century to come. In fact, in the entire course of the James river, which is visible nearly the whole distance from Richmond to Lynchburg, a distance of 146 miles, can be seen evidence of this rocky deposit, the river not being navigable above Richmond on account of the falls, shallows and boulders with which the river abounds, which necessitated the cutting of the canal, which is now itself a thing of the past in point of utility, the railroad superseding it. The projectors of this road have every reason to congratulate themselves, for it seems to be the right thing in the right place. Its local trade is very satisfactory, as it gives an outlet for the produce for many miles which has no other course, and is fostering industry along the line which will react in favor of the railroad. We know of no road of its length which has better prospects of being one which can earn and pay good dividends than this one, nor one which has opened up a better section of the country than has this railroad, scarcely a year old. This road has opened an outlet for the valuable deposits of slate and iron ore which lies near Brems, some 66 miles from Richmond. Not far from New Canton, near which place are slate quarries, one worked by Edwards & Co., and the other by J. R. Williams & Bro., Welshmen, brought up to the business in Wales, are iron ore deposits of desirable richness, the Messrs. Dunlap being now engaged in working a vein of magnetic ore, this old mine being near Brems. Some distance from the slate quarries, beyond New Canton, are valuable deposits of gold, and several mining companies are now either working or prospecting, and with very satisfactory results.

Why need our capital and energies be sent into the wilds of the far West, when within such comparatively short distance of our large cities so much valuable mineral and metal deposits are awaiting development, and in quantities which are sure to pay a fair profit, with the prospect of returning large gains to the investors? to which is added the very desirable feature that the properties are near enough for any of the stockholders who chose to do so to visit the mines, and see that they are *in the ground* and not merely on paper, as many of the Western mining enterprises are.

We have no interest in these lands, other

than a warm Southern feeling, consequent on a recent residence of some 10 or 12 years in the South, and we want all those who want to "go West" to first go South, where they are sure to find greater inducements, less privation, and will be within easy access of their old homes when they wish to see old, familiar forms, faces and places once more.

While want of time compelled us to make a flying trip, we managed to see a great deal and to hear considerable from both interested and disinterested parties and striking the golden medium. As soon as we can get the time, we intend to make a more complete examination of the lands in the sections spoken of, as well as in other localities. While we saw some poor land along the line of travel, which is always the case where large farms are the rule and small farmers the exception, we saw much valuable and desirable farm lands, and would not have had much trouble in selecting, in regard to quality, lay and fertility of the soil, such a farm as would please almost any one, and the facilities for rapid and cheap transportation afforded by the Richmond and Allegheny Railroad is not merely bringing these lands into the market as well as enhancing their value, but is instilling a spirit of enterprise into the old residents which is sure to be felt in their profits as well as in the freight traffic of the road.

During the summer months "summer boarders" from Richmond rusticate along the line of this road, and the accommodations for them in the farm houses near by are taxed to the utmost. Some of our enterprising hotel-keepers could make a good thing of it by opening summer boarding houses at eligible places along this road. As the Richmond and Allegheny Railroad affords very comfortable and neat accommodations for their passenger travel, and charge but a moderate rate of fare, they offer inducements which will be appreciated by tourist or prospector. The officers of the road, especially Mr. Barbour, the genial and efficient general passenger and freight agent of the road, are determined to popularize their line by liberality as well as efficiency in all departments. During summer this trip is particularly enjoyable, with the picturesque James river nearly always in sight, with its rugged course, reminding one of the

famous Brandywine scenery. There having been such a severe drought this past season much damage was done to the growing crops, as in many other sections of the country, tho' the corn, tobacco, and other crops had weathered the drought far better in the section we passed through than we had reason to suppose; the grass, however, was badly burned out, many of the old fields looking bare and browned. With improved machinery, more capital, energy and a willingness to work, and much smaller farms, this land could be made as fertile, productive and profitable as any northern farms, while their present comparative cheapness and nearness to our large Northern markets convince us of their desirability over the far West as a desirable home for those seeking farms or farm lands.

MORE ANON, Germantown, Pa.

English Wheat Crop for 1881.

We give our readers the benefit of the following letter of Dr. Lawes, of England to the editor of the *Standard*—a highly prominent English newspaper. There is much for calm reflection and study in this as in all else the learned doctor writes, besides, his reliable statements concerning the deficiency in the wheat crop of the Kingdom for 1881, and of the past seven years, as also the manner in which such deficiencies are supplied. It clearly shows that in future, England cannot supply herself with all the bread and meat she consumes, and that this country is looked to as the main dependence for these necessary supplies.

Sir.—The seven seasons ending with 1881 have been more disastrous to British agriculture than any seven consecutive years of which we have a record. Those who hold the opinion that the fluctuations of the weather occur in definite cycles will have some difficulty in finding a parallel to the period of the last seven years without going back to very remote records.

The change in the relative proportions of home-produced and imported wheat which has taken place during the last few years has entirely altered the character of the trade. In 1868-69 two-thirds of the total bread consumed was the produce of

home-grown wheat. A few years later the requirements of the country were met by one-half of foreign wheat. But the harvest of 1879 scarcely supplied one loaf in four required, that of 1880 only one in three, and that of 1880 only one in three, and that of 1881 will also supply only about one loaf in three required.

We cannot ignore the fact that in consequence of these great changes the question of a good or a bad wheat crop, however important it may be to the landowner or the cultivator, is no longer of the same importance to the nation at large as it was formerly. Another point worthy of notice is that, although our requirements for foreign wheat are becoming larger and larger, the fluctuations in the amounts required from year to year are becoming much less. Thus, after the bad season of 1860, the net imports of wheat increased from four and a half to ten million quarters, or by more than 100 per cent. In 1872-3, the imports were three million quarters more than in the previous year, corresponding to an increase of about 33 per cent. But after the harvest of 1879, the worst on record, when the net imports of wheat increased from 14.1 to 16.4 million quarters, the increase only amounted to about 16 per cent.

During the year ending August 31, 1881, the amount of foreign wheat retained for home consumption was more than sixteen million quarters. As the area under wheat in the United Kingdom was last year rather less than three million acres, a deficiency of half a quarter per acre in the yield of the crop, although a very serious matter so far as the interests of the cultivator are concerned, has comparatively little influence on the requirements of the country at large for foreign wheat.

I have no doubt that my estimate of the home wheat crop of 1880 was considerably too high. The average of the usually selected plots in my experimental wheat field showed a produce of twenty-seven bushels, reckoned at 6 lbs. per bushel. There was not at that time sufficient evidence to show how exceedingly bad was the yield of the crop upon the lighter soils; nor can I now account for the fact that in that year wheat grown continuously was so much better than wheat grown in rotation. For example, in the experimental field of light soil at Woburn the

land growing wheat every year showed but little difference between the crops in 1879 and 1880; but where, in the same field, wheat was grown in an ordinary four-course rotation, after clover fed off by stock with cake or corn, or without cake or corn, but with an application of artificial manures, the produce of 1880 was from eleven to sixteen bushels per acre less than under the same treatment in the very bad season of 1879.

In the following table is given the produce in 1881, upon the same selected plots as usual, in the field at Rothamsted, which has now grown wheat for thirty-eight years in succession. There is also given for comparison the average produce, on the same selected plots, over the last ten years, 1871-1880; over the preceding nineteen years, 1852-1870; and over the total period of twenty-nine years, 1852-1880; during which time the same manures have, in every case, been annually applied to the same plots:

HARVESTS.	unmanured Plot 3.	Farmy'd ma- nure plot 2.	Artificial Manures.			Mean of plots 7, 8, 9.	Mean of plots 5, 2 & 7, 8, 9.
			plot 7.	plot 8.	plot 9.		
BUSHEL OF DRESSED CORN PER ACRE.							
1881.	13½	30½	26½	30½	35½	30½	25 (1)
Av. 10 yrs., 1871-80	9½	29½	26½	30½	34½	30½	23½ (2)
Av. 19 yrs., 1852-70	14½	35½	36	38½	37	37½	29½ (3)
Av. 29 yrs., 1852-80	13½	33½	32½	36½	36½	35	27½ (4)
WEIGHT PER BUSH. OF DRESSED CORN, Lb.							
1881.	58.0	58.9	58.8	59.1	58.4	58.8	58.6
Av. 10 yrs., 1871-80	57.5	59.9	59.3	59.1	58.8	59.0	58.6
Av. 19 yrs., 1852-70	58.2	60.0	59.4	59.1	58.4	59.0	59.1
Av. 29 yrs., 1852-80	58.0	60.0	59.4	59.1	58.5	59.0	59.0
TOTAL STRAW, CHAFF, &c., PER ACRE, Cwt.							
1881.	10½	21½	19½	26	32½	26	19½
Av. 10 yrs., 1871-80	8½	29½	29½	37½	41½	36½	24½
Av. 19 yrs., 1852-70	13½	33½	35½	41½	41½	39½	28½
Av. 29 yrs., 1852-80	11½	32½	33½	40½	41½	38½	27½
(1) Equal to 24 bushels, at 61 lbs. per bushel.							
(2) Equal to 22½ bushels, at 61 lbs. per bushel.							
(3) Equal to 28½ bushels, at 61 lbs. per bushel.							
(4) Equal to 26½ bushels, at 61 lbs. per bushel.							

These figures do not show much prospect of an abundant harvest. The yield per acre is low, and quality indifferent. In no case among the nearly 40 plots in the experimental field does the weight per bushel reach 60 lbs., and the produce of straw is at the same time exceedingly low. In an adjoining field 21 varieties of wheat were grown side by side; not long before harvest the crops presented an exceedingly luxuriant appearance, and it was considered that the yield would be from 50 to 60 bushels per acre. The result of the thrashing is, however, disappointing. The highest

produce in the field is only 54 bushels per acre, with a weight per bushel of 57½ lbs., and the lowest produce in two cases is 39½ bushels, in one with a weight of 61 lbs., and in the other of scarcely 59 lbs. per bushel. It is, I think, quite evident that the yield of the wheat crop will vary very much, not only in the different districts, but in the same district, and even in different fields on the same farm.

The produce in my experimental field, taking the mean of the same selected plots as for many years past, shows an average of 24 bushels per acre, reckoned at 61 lbs. per bushel; and assuming an average crop of wheat to be 28 bushels, the crop is 14 per cent below the average.

According to the returns of the Registrar General, the population of the United Kingdom was a little below 35 millions on June 30th, 1881. Making the due allowance for the natural increase, the mean population to be fed during the year commencing Sept. 1, 1881, and ending August 31, 1882, will be 25,280,000. Estimating the consumption at 5½ bushels of wheat per head, the quantity required to feed the population will be a little under 25,000,000 quarters.

The area under wheat in the United Kingdom was, during the past harvest year, slightly under three million acres. If the yield in my experimental field be taken as a guide, the total wheat crop of the country would not amount to nine million quarters; and deducting from this the amount required for seed, the quantity of home-produced wheat left available for consumption would only be about eight million quarters; and we should thus have to depend upon foreign supplies for nearly seven million quarters. As, however, wheat has risen considerable in price, and the potato crop is likely to be abundant, it is probable that our requirement for foreign wheat may be satisfied by an import equal to that which we have received for the last two years—namely, from sixteen to sixteen and a half million quarters.

With a stationary or decreasing area under wheat, and a rapidly increasing population, it is probable that before many years are past, the home produce of wheat will not furnish more than one fourth of the total amount required,

I am, Sir, your obedient servant,

J. B. LAWES.

Rothamsted, Oct. 10,

THE DAIRY.

For the Maryland Farmer.

Co-operative Creameries.

NUMBER THREE.

Some readers of the *FARMER* may inquire why the butter of a co-operative creamery is superior to dairy butter, and why go to this expense to build a creamery, &c. The answer is because the milk of the co-operative factory is all set exactly alike, and conformity is strictly enjoined upon all by requiring each to use a cream raising apparatus exactly like his neighbors, and as cream is then what the farmer is after, rather than quantity of milk, good or poor, and his income being augmented or curtailed by the showing of cream; it stands to reason that every effort will be made to make the yield large as possible, the shortest road to reach this result is by liberal feeding, and strict compliance with the printed directions. There is no way that this cream can be diluted to show a larger yield than actually exists, so that honesty, both in his treatment of his cows, and in his offering to the cream gatherer will be for his pecuniary benefit.

Thus it will be seen that the cream from any given number of dairies, set in a uniform way, and its quantity—for with cream quantity means quality as well—influenced by the desire to obtain large results, gathered by one man in cans made especially for that purpose; must produce a better butter than can be made from the milk from the ordinary creamery, where cream and butter are both produced. At these factories the owners of dairies feed to obtain milk, quality not being at stake, and cream not measured, the quality must vary as the conditions are different. One dairy fed upon an unvarying diet of grass, others a little grain, and another brewer's grains, or worse still, sour meal from glucose factories, all assist in producing milk—varying as much in texture as the private dairies; and like them the butter cannot be uniform, but actually fall far below a No. 1 farm dairy, but as this cream is mixed, churned, worked and packed by an established formula, and shipped at once to mar-

ket, and usually eaten within a fortnight, it maintains a superiority over the miscellaneous collection of dairy butter.

The same argument that applies to factory butter, also applies to dairy butter, in part, but dairy butter is usually made under the very worst conditions, and these conditions being of all grades from the utterly unpardonable to medium, with a small per cent. of makers who strive to excel; it does not receive, except the small per cent. mentioned, even the benefit of uniform setting, working, etc., that the whole milk factory butter does, and both fall far below the result with co-operative creameries, conducted upon the Fairlamb plan, a plan that puts every dairymen upon his "best" at the start, and failures can only come by ignorance at the churn or package.

No doubt, if all the dairymen will get the Fairlamb cans for their private dairies, a great stride forward would be made, but as the methods that would govern the cream, its cure and the churning would be so nearly like the old methods, no great gain would come, but it might excite a feeling to excel, and in this way might prove advantageous. Perfect butter never can be made in the house, until butter cream rooms, butter ventilators, cream churned when it should be, and better knowledge of the care and wants of butter are attained by the makers.

By the plan we have tried to outline, the scattered dairies, by sea and mountain and in sunny valleys can be made to work together and a butter produced not equalled by the average dairy or whole milk factory. By all other systems the factory only controls the milk *after* it is taken in at the weigh stand, but by this the milk is controlled from the instant it is milked. Back of this the dairyman's interest is to produce the richest milk possible, the good wife is interested in a thick cream, and the butter maker in getting as great a yield as possible, but, as his pay is based upon the price received, rather than the points made, his interest is to make the best butter possible so as to get a fancy price. By this plan, honesty is the best policy throughout, and taken all in all, the Fairlamb system at co-operative creameries is the great progressive step of modern dairying.

JOHN GOULD,
Western Reserve, Ohio, Nov. 5.

For the Maryland Farmer.

Breeding Dairy Stock.

NUMBER FOUR.

Under any system of breeding the establishing of a strain of milking stock is a very gradual process, and success must sooner come if a start is made from one cow, rather than from the herd at large, for the power of prepotency is one that must be recognized as the chief factor, and by taking the perfect cow of the herd, the labor of eradicating defects will be diminished in proportion as the causes are lessened, though the work of establishing a line of succession will be slower.

The great trouble with grades is, that they, having no fixed type upon either line of pedigree, the tendencies are doubled to revert to undesirable qualities, so if the farmer has not the capital to buy thoroughbreds at once, his plan is judicious selection, but full success can never be reached unless a well bred bull of a tested milking strain is selected to reduce the chances of failure, for the power of prepotency is stronger upon the sire side than the dam, and the expectant result will be sooner reached.

Breed as he may, the dairyman must never lose sight of several matters, the most important of which is continuous judicious feeding from the start. Feeding from the commencement of the calves' life to the close of the cow's days of usefulness, should be with milk-producing foods, not necessarily one kind, or strictly unremittant, but always with the end or view of milk, for the feeding of milk producing agents has much to do with nurturing and developing the milking qualities, not only of the milk secreting glands, but also of qualities and "signs" that go far in establishing milking strains. By the laws of hereditary that now seem to be developed into a science, these milking qualities may be transmitted from one generation to another, so that they become fixed, a feat not more impossible than reproducing types of form.

Again, the rapidly gathering proof that milk is not a secretion of the glands of the udder, but the liquified glands themselves, helps not a little, showing that different foods, though of analytical equality, has a greater or less milk value, also showing that the food that goes directly into the blood

and is liquified with the glands into milk, far preferable to one that goes to build up bone and flesh, and shows that feeding for milk needs to be studied as closely in breeding a line of dairy stock, as the attention paid to breeding.

In another manner a definite idea must be entertained from the start. Shall the strain be for milk, for cheese factory, or for butter productions. For the former, the larger breeds of which the Ayrshires and Holsteins are the present types of excellence should be selected, for if a cheese product is sought, the larger quantity contains the larger proportion of cheese, and such milk upon an average require at least 25 pounds of milk to make one pound of butter. For butter the smaller breeds like the Jerseys are preferable as their milk is far more buttery, but while mention is made of these, there are numerous instances of "no breed" cows that surpass all pure breed records, and from one of such, if a bull is used from a milking strain, it may be quite possible to very early fix a type that would possess excellencies sought to be brought about, and also make clear another fact or two.

It will be quite impossible to arrive at any success lasting in character, if the same care that is at present bestowed upon native cows, is continued with the high grades and pure bloods. They will be found of fine mould and of more sensitive qualities, for their breeding into milking qualities lessens their "stamina," or power of self-preservation and like characteristics that contributes in making the native cow self-supporting. The new cow must perforce be better fed, given a larger proportion of milk forming foods, and better housed, and better bedded, for a cow kept in a warm stable, and bedded with dry material, has added two points to the score of success. Perfect symmetry of form seldom accompanies milking qualities, and if the just desideratum of milk is secured, together with health and vigorous assimilating powers to dispose of her food, the point has been gained.

Beyond this lies the dangerous ground of force feeding. Nothing was ever gained by this course, and injury sooner or later always follows. Feed exactly to the point of supply and demand, and if these few (!) requirements are followed in such a way as circumstances and conditions indicate, for

no laws of general adoption can be strictly adhered to, a measure of success must follow.

J. G.

Ohio, Aug., 1881.

For the Maryland Farmer.

Abortion in Cows.

The tendency to abortion in cows seems to be epidemic and occurring at irregular intervals, for it will extend over a large area for several months and perhaps not again prevail for two or three seasons more. It may take several large farms in succession and then skip as many; it may affect only a few in the herd or may affect nearly all which are pregnant or near the time of calving, so there seem to be no certain cure or preventative, the most dairymen can do being to use the well known precaution and then take the chances. Committees have repeatedly been appointed, composed of eminently scientific men, yet they have signally failed to get at the bottom facts connected with this very troublesome and dangerous malady.

There is no doubt that high feeding, especially where the animals are closely confined most of the time, has much to do with this trouble, a want of natural and very desirable exercise making the tendency to abort much greater. Amongst the herd of common cows, which have plenty of exercise and which are hardened by exercise and which are hardened by exposure, we seldom, if ever, hear of a case of abortion, unless it be caused by violent exercise or by a kick or a blow, which, at certain stages of pregnancy is liable to cause the same trouble with all animals which are pregnant. We think that the severity or extent of this disorder might be lessened by permitting the animals to have more exercise, by not confining them in dark or damp stalls, especially with stanchions, when they have any tendency to abort, and to feed well without over-feeding, and not on too rich or concentrated food. When a cow has aborted once, she is apt to do so with her next calf, just about the same period of pregnancy, so she must be carefully watched and kept free from all excitement, for a second abortion frequently confirms an animal in the very injurious practice. Aside from this, when the cow aborts in the field or yard, in the presence of other pregnant cows of the herd, the

others are singularly affected, and we have known several cases where others have aborted just from this cause alone. The affected animal should be removed from the rest of the herd as soon as she slinks her calf, as well as should be all evidences of the trouble, else there may be other cows which will soon be affected in the same way. Care, cleanliness, cool light stables; good, but not too rich food and healthful exercise will go far towards mitigating the disorder.

E. Jr.

Feed Dairy Cows Liberally.

We believe the dairyman should study how he may produce all the food necessary for his cows upon his own farm, and he should make all the provision that an intelligent foresight can do; but he should never suffer his herd to go with deficient food, even for one week, for this he cannot afford to do. And that we may encourage him to be liberal, even when his pasture is short and he has no extra green food for them, let us compare the cost of nutriment in some by-product, such as bran, cotton-seed meal, linseed meal, corn meal, etc., some one of which the dairyman may always find near at hand, with pasture grass. Pasture grass has about 80 per cent of water, and the nutriment of 100 lbs of it is supposed to be worth 21 cents. The nutriment of 19 lbs of fine bran is just equal to 100 lbs of pasture grass. 10 lbs. of cotton seed meal, 12 lbs. linseed meal; or 19 lbs. of corn meal is equal to 100 lbs. of grass. Now, 100 lbs. (?) of pasture grass is a ration for an ordinary-sized cow per day. If the pasture then is short one-third or one-half or any other proportion, it is easy to make up this deficiency by feeding some one or several of the foods which are so easily handled. It is seldom that more than one-third will have to be fed to make a full ration of short pasture. Let us suppose the dairyman to be feeding 7 lbs. of fine bran; this, at \$8 per ton, would cost 2.8 cents per day, or about 19 cents per week. Now the extra milk per week produced by this bran would much more than pay the cost. If he should feed instead of bran, 4 lbs. of linseed meal, it would cost him about 28 cents per week; or 3½ lbs. of cotton-seed meal, it would cost 22 cents per week; or 6½ lbs. of corn meal, it would cost from 20 to 35 cents per cow per week.

If he has the command of all these, let him make up a ration nearly as follows: 4 lbs. of bran, $\frac{1}{2}$ lb. linseed meal and $1\frac{1}{2}$ lbs. cornmeal to each cow per day, which will, in most cases, cost only 20 cents per week, and will keep a generous flow of milk till the fall rains renew the pasture, and then the extra food can be discontinued. Corn meal be found cheap in some localities, but it is always best to mix some bran with it; and in most parts of all our broad dairy belt, bran will be found the cheapest extra food to make up for short pasture.—*Live Stock Register*.

POULTRY HOUSE.

Conducted by T. B. Dorsey,
St. Denis, Baltimore Co.,

The Light Brahma.

Perhaps, in the whole history of the improvement of the different breeds of poultry, there is no single variety which has had more time and pains spent upon it, and has attained a more wide spread and universal reputation. Having for foundation the ungainly and awkward Shanghai, the mock of all the breeders of Games, Hamburgs and the lighter breeds of their day, by careful study and patient endeavor there has been created a bird which to-day is almost without a rival among the larger breeds of domestic fowls. If popularity be the test of merit, the Light Brahma today will outrank nearly every competitor, and in two of every three farm-yards, if you do not find the stock in its purity you find decided traces of its blood. They outrival all other breeds of Asiatics in size; are exceedingly hardy; feather and grow even more rapidly than Cochins, and as winter layers, when eggs are scarce, have never as far as my experience goes, been beaten. Their eggs are like their bodies, of such massive proportions and fine shape, as to always command the top price in the market. For small garden farms or villa residences they are the best of all the large breeds. For large farms however, where the waste of feed is large, and where they are allowed unlimited run, they are very often not profitable. The reason is this; like all Asiatics they are gross feeders, and when allowed to glut themselves to the full, become fat,

lazy and sluggish, and of course fall off in their egg production. Confinement and judicious feeding does them good instead of harm, and properly treated they will satisfy any breeder. The great trouble in fancy breeding has been that many breeders in their desire to attain size, have secured their point to the detriment of shape, and a style of stilty, long-legged bird has been foisted on the breeding market, which is tending to revert to the old Shanghai shape. For breeders who wish for perfection in color, the American Standard of Excellence is the best guide. For those who want the best birds for market, I would recommend a cock, broad in back and breast, not too long in leg, but well balanced and sturdy in figure; hens, large across the back, not too long in leg, with good, fluffy and well shaped breast. Bred in this way and not too closely inbred, they will throw a large percentage of fine chicks. Cocks from 11 to 12 pounds are quite heavy enough, and hens from 9 to 11.

FEEDING SOFT FEED.

It is of course very much easier to throw down a handful of grain in the chilly winter mornings, let the fowls scramble for it as they please, tread half of it into the snow and mud, and poor Biddy, who happens to be a little lazy, and don't want to leave the warm house until a more fashionable hour, comes too late for the feast and goes breakfastless. But, if you want to keep your birds in good health, if you want plenty of eggs and early chicken, keep a kettle of hot water ready on the stove, or a pot full of boiled carrots, potatoes, turnips or the like, thicken with corn chop and ship stuff, and feed it to your birds steaming hot. Have proper feeding troughs in your yards, arranged so each bird can get a fair share, and you will find it does not take much longer, is far less waste, is far cheaper, and when the interest comes due it is paid regularly. You need not go out of doors till your mixture is stirred up and ready to ladle out, and the time you will be out won't do you any harm. The birds are hungry, they want something both to fill them up and keep them warm as soon as may be, and while they are grinding the grain they are shivering in the winter air. With feed troughs properly arranged, I have fed fourteen yards in twenty minutes and every bird got its full share.

Keep the pot-liquor your bacon was boiled in and put your vegetables in it. Biddy has as good a taste as you have and prefers her cabbage boiled in the ham pot all the time. Save your meat scraps, your rinsings of milk, your scrapings of fat and butter, pitch it all in your soft feed, and instead of one hen running away with a tid-bit, every one gets some of the flavor and will devour her hot porridge all the more greedily. Try my plan and if you do not get eggs in December for Christmas cakes and puddings, while your neighbor who feeds grain in the morning, wonders where you get them, why I know nothing about poultry.

LIVE STOCK REGISTER.

Management of Sheep.

By COL. J. W. WARE, *in the Farm and Garden.*

In the late fall there is not much to do in management of sheep but to keep the tags off for fear of generating vermin, and prevent the wool from matting, and by being constantly wet, causing inflammation and consequent mortification. This is in reference to long wool sheep. The latter part of October I separate my bucks from my ewes, for if the ewes wanted the buck after that time, from miscarriage or otherwise, it would bring the lamb too late. A buck ought not to be kept alone. He should have other bucks with him, or a few wethers or ewes. When kept by themselves they sometimes die from loneliness.

If a sheep should die in the flock, he should at once be entirely removed, as his carcass would attract dogs.

A shed should be built on south side of a hill, (if a hill is there,) forming an elbow and enclosed so as to exclude the west and north winds, also closing east end—leaving the south as open as possible to let the sun in—the front of the shed high, the back low, so that a sheep can rub his back—the top thickly covered with straw. Sheep do not bear confinement well and ought to be allowed to go in and out at pleasure. The top of the shed ought to be covered for shade in November, the sides and backs not closed till hard weather; the shed

ought to be temporary, so it can be moved when the field is desired for any other purpose and it should be made large enough for the flock without crowding them.

Next is protection from dogs. Sheep should be kept as *tame as possible and accustomed to dogs*. A dog is not likely to attack unless they run from him, and he will chase a bird that flies from him. In reading this bear in mind that I kept none but the large mutton sheep (Cotswold,) they were large, always fat and sluggish—would lie in the shade inanimate, and not jump up when dogs came into the field, and I do not recollect ever losing one by dogs.

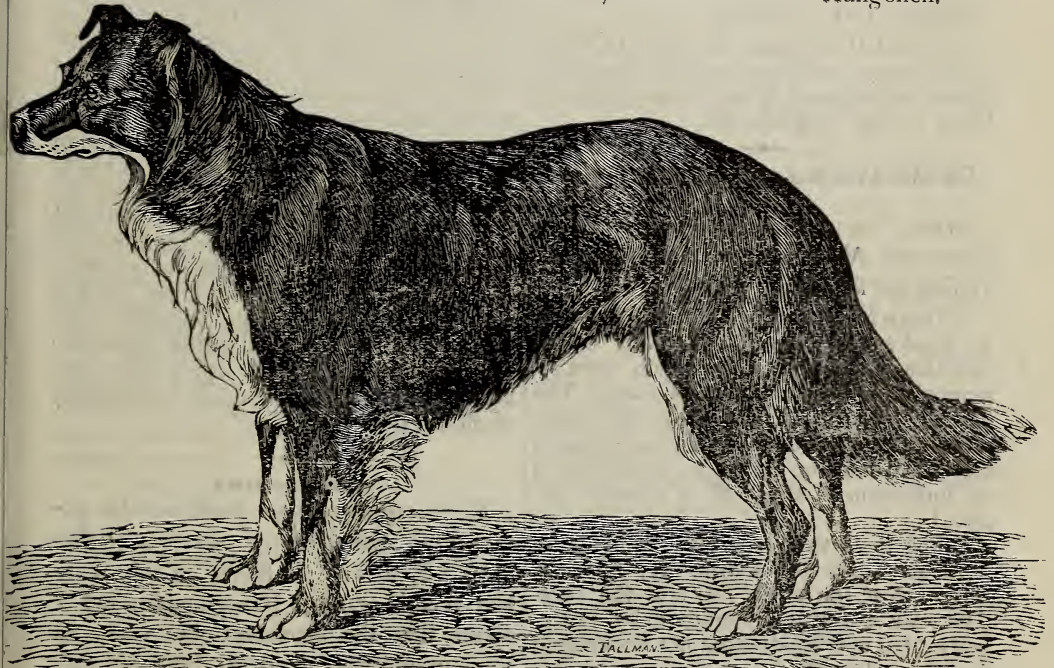
To encourage sheep raisers I may as well state my course. I always imported the winners of the high prizes of the Royal Agricultural Society, of England, for breeders, and never had of this class more than seventy-five (75) at a time. The produce of these I could not, of course, sell for mutton. I had another flock to raise mutton, their foundation was cross of thoroughbred Leicester and Southdown, strongly crossed by imported Cotswold buck. The heaviest buck I ever weighed was 430 pounds, the fall after one year old—one mutton netted 235 pounds, probably the largest mutton in the world. Two (twins) averaged over 200 pounds each. I sold a lot of yearling mutton to a butcher for \$10 each, he sold their saddles for \$35 each. I sold a lot of mutton for \$35 each, and bargained for all I could bring to 200 pounds net, at \$100. This good fortune did not come by chance. Success in this, as in any other business depends on attention.

Having won the highest prizes in England and in the United States where I could contend, I may claim to have had the finest sheep in the world, but during the war, the Union troops came in and shot them all down in the field and impoverished me too much to rebuild. I considered it in a measure, a National calamity, as many States, as well as some breeders in foreign lands, got their improvements from me.

BLOODED STOCK FOR MARYLAND.—Dr. J. W. Downey, New Market, Md., has lately purchased a Clydesdale mare—Emerald—from Messrs. Smiths & Powell, Syracuse, N. Y.

We take great pleasure in giving a truthful portrait of this remarkable dog, Tweed II, the property of Dr. J. W. Downey, New Market, Md. Tweed was imported by Mr. S. S. Greece, in August, 1880. Since then he has been the property of Dr. Downey, and has attracted the admiration of thousands by his performances in the field with strange flocks of sheep, at the different great agricultural fairs of the country, and always received the highest praise as well as premiums. He was a prize winner at Philadelphia Collie Trials.

June, 1879—First Prize Puppy Stake, Alexandra Palace.
 “ Divided Championship Stake, Alexandra Palace with his mother.
 Oct. 11, '76—First Prize, Garthgoch Bala.
 “ “ Championship Silver Cup.
 Oct. 27, “ First Prize Hanlidoes.
 “ 28, “ “ Machynlleth.
 Sept. 21, '77—Third Prize Machynlleth.
 Oct. 10, '77—First Prize Garthgoch Bala and Championship.
 Nov. 1, '77—Second Prize Pentrevelas.
 Dec. 1, “ Third “ Hangynog.
 Oct. 8, '78—Second “ Machynlleth.
 “ 30, “ “ “ Handerfel.
 “ 28, “ “ “ Hangollen.



CHAMPION TWEED II.—Imported Rough-Coated Scotch Collie, owned by Dr. Downey, New Market, Md.

At Pittsburgh, Pa., Sept. 1881, he took first premium, and also won first at National Fair, Washington city, D. C., and at Maryland State Fair, at Pimlico. He took second premium at Timonium, Balto. Co. Fair, when the first was awarded to his companion, Scottish Maid, also owned by Dr. Downey. This was an oversight on the part of the judges, who were unacquainted with the true merits of Collie dogs. Before leaving Europe he won the following prizes at field trials;—

Sept. 21, '80. “ “ Philadelphia.
 AT BENCH SHOWS.
 Oct. 5, 1880, Second Prize, St. Louis Bench Show.
 Jan. 17, 1881, First Prize Pittsburg Bench Show.
 April 27, 1881, Champion Prize, New York Bench Show.
 April 27, 1881, Silver Cup, N. Y., for best Collie in the Show.

Tweed is medium size, black and tan in color, with white in chest, fine feathered legs and tail, very intelligent in expression,

not a pretty, but good looking dog.

The *Chicago Field*, Oct. 9, 1880, thus speaks of him :

"Up to the highest standard of Bench Show excellency. Tweed's quality as a worker, shown at these trials, stamps him as the best all round Collie in the country to-day."

The *Forest and Stream* says: "*He is a good dog all over.*" As to his performance at Pimlico, Oct., 1881, we have heretofore given our unqualified praise and agree with the *Baltimore Sun*, when speaking of that exhibition justly remarks.

"Tweed II managed his flock of sheep to perfection; obeying every motion of his master with almost humanlike intelligence. He is a grand dog all over."

Saddle Horses and Saddle Gaits.

In the August number of that excellent paper, the *National Live Stock Journal*, we find the following :

"There is an increasing demand of late for good saddle horses, and many of the fairs this season are paying much more attention than formerly to this class. The Chicago fair, especially, is giving great prominence to saddle horses in its premium list, which may be taken as something of an indication of the drift of popular demand.

"The gaits that especially commend a horse for use in the saddle are, the *walk*, the *fox trot*, the *single foot* and the *rack*. The walk is a gait understood by everybody; but everybody does not understand that a good saddle-horse ought to be able to go a square walk at the rate of five miles an hour. The fox trot is faster than the square walk, and the horse will usually take a few steps at this gait, when changing from a fast walk to a trot. It may be easily taught to horses by urging them slightly beyond their ordinary walking speed, and when they strike the fox-trot step, holding them to it. They will soon learn to like it, and it is one of the easiest of gaits for both horse and rider.

"The single-foot differs somewhat from the fox-trot, and has been described as exactly intermediate between the true trot and the true walk. Each foot appears to

move independently of the other, with a sort of a pit-a-pat, one-at-a-time motion, and it is a much faster gait than the fox-fox trot.

"The rack is very nearly allied to the true pacing gait, the difference being that in the latter the hind foot keeps exact time with the fore foot on the same side, making it what it has been called a lateral or one-side-at-a-time motion, while in the former, the hind foot touches the ground slightly in advance of the fore-foot on the same side. The rack is not so fast a gait as the true pace, but is a very desirable gait in a saddle horse. In addition, the perfect saddle horse should be able to trot, pace and gallop, and should be quick, nervous and elastic in all his motions, without a particle of dullness or sluggishness in his nature. His mouth should be sensitive and he should respond instantly to the slightest motion of the rein in the hands of the rider. A poor, clumsy rider however will soon spoil the best trained saddle horse in the world, and such a person should never be permitted to mount a horse that is exceptionally valuable for that purpose. A 'plug horse' and a 'plug rider' may well go together; but keep a good, well trained saddle horse for one who knows how to enjoy this most health-giving, exhilarating and delightful of all out-door exercises."

CORRECTION.

We stated some time back, on the authority of the *Country Gentleman*, that Messrs. Seth and A. Banks, of this State had bought sundry Jersey cattle, and it seems that the statement was wrong in some particulars, which Mr. Seth has corrected in the *Country Gentleman*, and we feel bound to make the correction. Mr. Seth says: "Mr. Andrew Banks, of Baltimore is not the owner of Arawana Buttercup. I still enjoy that felicity. Neither does Mr. B. own the whole fame. Mr. J. E. Phillips, of Baltimore county owns Cuckoo Bird—the first of her daughters."

AN agreeable dressing for the hair that will stop its falling, has been long sought for. Parker's Hair Balsam, distinguished for its purity, fully supplies this want.

Some Principles in Breeding.

Mr. J. Howard, M. P., of England says :

"From my own observation, from conversation with the late Mr. McCombie, and comparing notes with other breeders, I have come to the conclusion that the following cardinal points in the art of breeding have been fairly established :—

1. That from the male parent are mainly derived the external structure, configuration, and outward characteristics—the locomotive peculiarities in lusive.

2. From the female parent are derived the internal structure, the vital organs, and in a much greater proportion than from the male, the constitution, temper and habits.

3. That the purer the race of the parent the more certainty there is of transmitting its qualities to the offspring. Say two animals are mated ; if one is of purer descent than the other, he or she will exercise the most influence in stamping the character of the progeny, particularly if the greater purity is on the side of the male.

4. That apart from certain disturbing influences or causes, the male, if of pure race and descended from a stock of uniform color, stamps the color of the offspring.

5. That the influence of the first male is not unfrequently protracted beyond the birth of the offspring of which he is the parent, and his mark is left upon subsequent progeny.

6. That the transmission of diseases of the vital organs is more certain if on the side of the female, and diseases of the joints, if on the side of the male parent.

IN 1868, Mr. Jo. Drahm, an extensive sheep-raiser, in this country, gave a little boy in Bosque county, a pet lamb. The lamb sheared, in 1879, eight pounds of wool which sold at 24c.—\$1.92. In the spring of 1880, he bought a buck lamb and sheared nine pounds of wool which sold at 25c.—\$2.25. The buck lamb was traded that fall for two grown ewes. The past spring the three head sheared twenty-five pounds of wool, which sold at 24c.—\$6.00, and each brought a lamb. The pet sheep brought another buck, which has just been traded for two grown ewes, giving him an increase of seven head, worth \$5 or \$35 ; the sale of wool \$10.17, makes the handsome yield of \$45.17, from a motherless lamb since 1878.—*Waco Telephone.*

The Ox vs. the Horse.

"Unpleasant as it may be to those of us who have always admired a good yoke of oxen, it is evident that gradually they are to be supplanted by the horse. On very large farms, where a portion of the land is rough, and where large rocks are to be removed, there can be but little doubt that the ox is better than the horse. In the woods where the ground is very uneven and rocky, the ox is much the best, because he moves with caution and never gets so nervous as the horse. In hauling out heavy logs, the ox works to better advantage than the horse, and in breaking up new lands that is full of roots and stones, the ox is almost indispensable ; as our grandfathers had much of this work to do, they could not have dispensed with them and used horses, if they had had any desire to do so ; without oxen they would not have thought that they could have run their farms a single year. But great changes have taken place within the last century, both in the condition of our farms and our methods of farming. Now, there are large numbers of farms that have but few acres that cannot be readily ploughed with horses ; land that cannot be readily plowed with a span of horses is kept for pasture or woodland, and only such land is cultivated as is so free from obstructions that it can easily be ploughed and cultivated. The best argument that can now be used in favor of oxen and against horses is, that the ox is always growing more valuable, even while at work ; that a pair of steers can be raised or purchased at a low price, and gradually they grow up to be heavy oxen, and are then very valuable for beef, and if an accident happens to one, it can be sold at once for food ; while, on the other hand, the horse is of high cost at first, whether he be raised or purchased, and very soon after he is put to hard work begins to lose value, if an accident at any time happen to him, he is of no value to kill. But notwithstanding these advantages of the ox and the drawbacks on the horse, the horse is of so much quicker motion than the ox, that few farmers at the present time feel that they can run much of a farm with oxen and only one horse. What farmer would think that he could run a mower or a tedder with oxen ? The question is so completely settled that a portion of the work

on the farm requires to be done with a span of horses, that in deciding the question of keeping oxen, it is not whether it shall be oxen or horses, but whether it shall be both oxen and horses. As few but large farmers can keep both, the question is settled by selling the oxen."—*Ploughman, Mass.*

Draft Horses.

Draft horses are the most profitable to raise, for they are sure to be of a good size and moderately good form, if a draft sire is used; while if one breeds to what is called a trotting sire, he may breed twenty colts and not get one that is worth more than common prices. There is now and the prospect for the future is, that the demand for heavy draft horses is unlimited, and at prices that will pay for the raising. If a man can get from \$400 to \$500 every year, for a team of horses that he has to sell, of his own raising, it will help to pay a good many bills.

Another advantage of draft horses is the ease which they are broken to harness, generally working right off without giving any trouble or wanting to run away at every opportunity. These large horses should be kept on a liberal feed, as it requires a good growing animal to bring a good price.—*Breeders Live Stock Journal.*

The following from the *Industrialist*, organ of the Kansas Agricultural College:

"Our Angus cattle thrive beautifully in their new homes. Nothing on the farm has so far done so well as our doddies; and no breed that we have ever had upon the College farm has received so much attention and favorable notice from visitors as our Angus beauties."

Coloma, Mich., Nov 4, 1880.

Dr. J. B. Kendall & Co.—Gents: Accepts thanks for circulars, which helps us considerable. We are selling a large amount of your Kendall's Spavin Cure, which gives great satisfaction. We are authorized to say for Mr. A. H. Sutton, a farmer near here: "I have used six bottles of Kendall's Spavin Cure, and cured as many spavins (well marked,) on different horses. I consider it a remedy never equalled for spavins or ringbones."

Yours truly, RYNO & GILSON.

Domestic Recipes.

CHICKEN-PUDDING.—Cut up a chicken, thoroughly cleaned, into small pieces and put into a saucepan with a little water, add salt and pepper to suit the taste. Boil till quite tender, then put into a three-quart pudding-dish. While the chicken is cooking grate a quart of green corn, or if more convenient, cut it from the cob quite fine. Beat three eggs very light, and stir into one pint of rich milk or cream. Season with salt and pepper, dredge the chicken thickly with flour, laying bits of butter all over it, pour the corn, egg and milk over it, and bake until done.—*Mrs. H. W. Beecher.*

HOW TO MAKE A TOUGH STEAK TENDER—was a topic which aroused a good deal of interest. This great problem deserves great attention. It is one which the average boarding-house keeper has been trying to solve ever since the days of Ahasuerus. Miss Corson's is to put three tablespoonfuls of salad oil, one tablespoonful of vinegar and a large pinch of pepper, well mixed together, on a large flat dish, and on this is laid the steak. Salt must never be put on steak before it is cooked. The steak must lie on this tender making mixture for at least half an hour to a side, and Miss Corson gives her word for it that the toughest round steak will succumb, and seem like porter-house of the most delightful cut.

APPLE MARMALADE—Apple marmalade is a simple and excellent preserve, and offers a change from the ever present cider apple sauce and stewed apples, seen on so many country tables. Take seven pounds of late Fall pippin and stew them in a pint of water. Put them through a sieve, and the juice and the grated rind of three lemons. Boil about one hour; ten minutes before it is done add three ounces of ginger root. This may be made of one-third quinces and two-thirds apples, when the ginger root and lemons should be left out.

BAKED TOMATOES.—Sprinkle a layer of bread crumbs into a yellow nappy or a baking dish, and spread it over a layer of chopped raw tomatoes, seasoned with pepper and salt, and bits of butter. Fill up the dish, having the upper layer of bread, with bits of butter. Bake for three-quarters of an hour. An excellent breakfast relish,

FRENCH MUSTARD.—Slice an onion in a bowl and cover with good vinegar, after two days, pour off the vinegar, add to it a teaspoonful of cayenne pepper, a teaspoonful of salt, a tablespoonful of sugar, and mustard enough to thicken; set on the stove until it boils, when cold it is fit for use.

New Publications Received.

FARMING FOR BOYS.—What they have done, what others may do in the cultivation of farm and garden. How to begin, how to proceed and what to aim at. By the author of *Ten Acres Enough*. Illustrated. Boston: D. Lothrop & Co.; price \$1.25. This excellent work from the pen of the author of *Ten Acres Enough* will be warmly welcomed by boys who delight in country work, as well as by parents who would like to see their sons settle down to good, honest labor on the old homestead, or on farms of their own. This book is pleasantly written in the form of a story and will be read with profit and pleasure by those for whom it was intended. It should be perused by every country lad. It is a nice Christmas gift for a boy.

CONTAGIOUS DISEASES OF DOMESTIC ANIMALS, 1880-1881.—Received from U. S. Agricultural Department. This volume is the continuation of reports by scientific gentlemen, upon the diseases of domestic animals which are contagious and have spread to so alarming an extent in this country and Europe of late years. It is elaborate and fully illustrated with many colored engravings, so that with the text, every farmer can soon detect each disease and apply the remedies suggested. It should have a very extended, free circulation and breeders of stock should study its contents. We consider it a work of great usefulness. It is to be had through members of Congress and the Agricultural Department at Washington.

Upon being spoken to concerning St. Jacobs Oil, our fellow townsman, Mr. Theodore Wakelee said: "I had been suffering with rheumatism and obtained the greatest relief from the use of St. Jacobs Oil. It has also been used in my family for some time, and has never been found to fail in giving prompt relief.—*Battle Creek (Mich.) Daily Journal*.

The Democratic Advocate.—This esteemed newspaper, published in Westminster, Carroll Co., Md., has entered upon its seventeenth volume and comes to us bright and fresh in its entire new outfit of type, rules, headings, &c., and full of interesting matter. We congratulate our brothers Vanderford upon this substantial evidence of enlarged circulation and continuous prosperity. Of its great local usefulness there can be no doubt and we heartily wish it all the success it so well merits.

COTTON SEED.—The *Iron Age* says: "The cottonseed oil mills that are rapidly being put in operation in the South are creating no little stir and discussion as to their effect upon the agricultural interests of the country. This is a comparatively new industry, and we already find that no less than 120,000 tons of oilcake, or cottonseed meal, have but recently been shipped abroad, not counting the supply sold and consumed in non-cotton-producing sections of our own country."

NOW IS THE TIME to subscribe for the *Maryland Farmer*, and secure a practical monthly of thirty-two pages of sound reading on Agricultural subjects, Horticulture, Dairy, Stock-Breeding, Bees, and entertaining family literature connected with the household. Only \$1.00 per year, with a valuable book as a premium.

THE DR. HARTER MEDICINE COMPANY, of St. Louis, Mo., is one of the most honorable and substantial establishments in the country. Dr. Harter's Iron Tonic is one of the standard and most highly esteemed preparations, and justly enjoys a wide and increasing sale. This is brought about by the high merit of the goods and the judicious and extensive manner in which they are advertised throughout the country. Laudatory columns might be easily written in their praise, but with goods so able to speak for themselves, simple facts serve a better purpose.—*Des Moines (Iowa,) Western Farm Journal*.

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Horticulture and Rural Economy.

EZRA WHITMAN, Editor,

COL. W. W. W. BOWIE, Associate Editor,

141 WEST PRATT STREET,

BALTIMORE, MD.

BALTIMORE, NOVEMBER 1st, 1881.

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THE MARYLAND FARMER is now read by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory

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Any person who sends us 100 Subscribers, at \$1 00, will receive the world-renowned Howe Sewing Machine, with all the latest improvements. Value, \$50 00.

Any person who sends us 80 Subscribers, at \$1 00 each, will receive 1 Young America Corn and Cob Mill, worth \$40 00.

Any person who sends us 50 Subscribers, at \$1 00 each, will receive 1 of the celebrated Wheat Fans, which has taken nearly 200 premiums. Value, \$28 00.

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THESE ARTICLES WE WARRANT TO BE FIRST-CLASS.

☞ It will not be necessary to secure the subscribers all at one time. For instance, if any one wants the Mill we offer for 80 new subscribers, he can send the names in any number he chooses, and we will allow him a whole year to finish the club.

☞ COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

☞ Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

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--FOR THE--

Maryland Farmer,

A Monthly Magazine devoted to

Agriculture, Horticulture,

AND RURAL ECONOMY

The oldest Agricultural Journal in Maryland and
for ten years the only one.

TERMS: \$1.00 PER YEAR IN ADVANCE.

Published by Ezra Whitman.

The subscription price is very low, and we think any farmer merchant or mechanic would find it worth to him ten times its cost. As an extra inducement, we will send (free, as a premium,) to each subscriber, one of the following valuable books as he may select, viz:—"Kendall's Horse Book," "Curtis' Wheat Culture," "Fisher's Grain Tables," or "Scribner's Lumber and Log Book," either of these books are worth to the farmer more than the price of our Journal, and by enclosing \$1.00 the Maryland Farmer will be promptly sent you for one year and either of the books you may select, free of postage.

EZRA WHITMAN,

How do Plants obtain Nitrogen.

This interesting question seems a puzzling one to agricultural chemists, and certainly at this time is an important one to all who are interested in Agriculture. The general tendency seems, at last, to incline to the ideas, long and manfully contended for in our columns by A. P. Sharp, Esq., that plants obtain their nitrogen from some other source than artificial application in manure.

It would seem that many who once scouted this theory are beginning to "back water," and slowly acknowledge that there is something in it. Prof. Atwater, who has long held to the old theory, has recently used the following language:

"The prevailing opinion among agricultural chemists for some time, and one which I have shared, has been that plants get nearly all their nitrogen from the soil and extremely little from the air. But there are many facts which are very hard to explain on this theory, and I am, with many others coming strongly to suspect that plants do get considerable nitrogen from the air."

If future experiments go to confirm the assertion of Mr. Sharp and others, that the introduction of nitrogenous or quarternary compounds are not necessary, surely the farmers will have just cause to rejoice, as purchased nitrogen is one of the most expensive ingredients entering the ammoniated fertilizers, and being classed as the standard of value of all other material composing the fertilizers of the present day. If it can be proven that wheat and other plants can obtain it without the aid of man, from the inorganic kingdom, surely there must be a revolution in the values and some other standard adopted. In doing so, it is to be hoped, something more fixed than the uncertain compounds of nitrogen will be adopted. Farmers should experiment for themselves by trying manures free from nitrogen, and highly ammoniated manures of the same sort, side by side, and thus satisfy themselves,

Should future facts support this theory, it will enable our manufacturers to sell much more of their fertilizers free from the nitrogenous compounds which are costly and troublesome to intermix, and their profits will be as much in the end as they are at present, because of the increased sales of their valuable admixtures. Of course, a sufficient amount of nitrogenized fertilizers will be always made to suit such soils as require that element. How farmers are to get along without the aid of science and fertilizer manufacturers we cannot conceive at the present day, because the interest of the two have become blended and the one is dependent on the other. Science and discovery are progressive, and whatever careful experiment may develop will aid the manufacturer of plant food in a corresponding ratio that it helps the farmer—as the farmer is enabled to produce large crops, the manufacturers of fertilizers will increase their business with increased profits.

We believe that there are some soils where unammoniated manures will be as efficient as ammoniated compounds; while there are some soils that manures or fertilizers to be efficacious must have ammonia in their ingredients. Farmers should test this matter by experiment, and they may find that South Carolina rock, and such natural products dissolved, will be more beneficial than costly manipulated fertilizers. Where this is found to be the case, the farmer would save greatly by not carrying high-priced coals to Newcastle.

We all know that wood ashes is a valuable manure for most plants and is a great restorer to worn out soils, and ashes certainly have no ammonia or nitrogen in them. Yet it is contended by some that ashes, like lime, have a property to set free the nitrogen in the soil that otherwise would be inactive and unavailable as food for plants.

There are many soils where such preparations as dissolved S. C. rock will be of the greatest value, if applied, and there are

many other soils where such an application would perhaps be of but small benefit for the want of nitrogen. Experiment can alone decide where doctors disagree. Let us have these experiments and a full report given in the MARYLAND FARMER, that all the tillers of the soil may profit from the experience of their fellow-farmers.

There are millions to be saved or lost in this question, and surely the farmers should not be indifferent as to the result, when by a few experiments in the different fields of each owner, this vital question can be solved to the satisfaction of each experimenter.

If a farmer, by a test made by himself, can save \$20 a ton on the fertilizer he buys, he will be able to buy two or more tons where he now buys one. The matter rests happily with the farmer himself, and he stands in his own light if he does not test the matter to his own satisfaction. We hope to have many reports of experiments tending to settle this vexed question, during the next year. Let us hear from our intelligent cultivators of the soil. In connection with this we give the views of X. I. S., a correspondent in the "Country Gentleman."

THE SOURCE OF NITROGEN IN PLANTS.

The question of the day seems to be, where does the plant get its nitrogen? After all his field experiments that should aid him to a definite conclusion, Dr. Lawes most frankly says: "It is exceedingly difficult to account for all the nitrogen which plants obtain." He is of the opinion that free nitrogen is not assimilated from the atmosphere, and this opinion rests upon the indications of his field experiments. He looks upon the superior fertility of our American soil in the light of a greater supply of combined nitrogen, and in his own words says: "If, as a farmer, I were about to emigrate, with the hope of being more successful in the States, it would be because I could expect to find there a larger stock of nitrogen in the soil." I quote this to show that, looked at from the standpoint of dollars and cents, Dr. Lawes considers the nitrogen of the soil the measure of fertility, and upon its presence or absence he would

base his actions. And yet it is exceedingly difficult to account for all the nitrogen which the plants obtain.

I hope that the experiments which Prof. Atwater has now in progress will throw light upon this very important, and I think it may be said the leading, agricultural question of the day. If the free nitrogen of the air is available to all, or even to certain plants, under favorable circumstances, our agriculture, in its highest forms, will be one thing; and if the nitrogen for vegetable growth must all come from its compounds, and enter the plants through their roots, then the future of practical farming will be another thing. If a renovating crop does not renovate, the thousands who grow that crop wish to know it; but if our greatest cereal does extract nitrogen from the air, and store it in a proper shape for succeeding crops to profit by its legacy to the soil, then the knowledge of that fact should be spread as far as the four winds of heaven. What the farmer wants is the truth; it is the only basis upon which a progressive and profitable agriculture can rest.—*Country Gentlemen*

IN MEMORIAM.

With the deepest regret we announce the death of the Hon. John Merryman, of Hayfields, Baltimore county, Md. Mr. Merryman was born at Hereford farm, Baltimore county, Md., August 9th 1824, and died, after a lingering illness at his home, on the 19th of November, 1881. No one who ever met him, but will remember his handsome face, fine figure and genial, popular manners. Few men in the State commanded a greater reputation for integrity, nobility of soul and sincere friendship. His house was the home for his friends, and the stranger received that kindly welcome which has ever signally marked Old Maryland hospitality. He was favorably known over the whole State, as a politician, farmer and live stock breeder, and his fame in each position extended to the limits of the whole Union.

We feel his loss especially, since he has

been our life-long friend, and further, we seem justified in giving particular notice of his death, in as much as he always exhibited a deep interest in the success of the *Maryland Farmer*, and during the latter years of his life manifested by his contributions to its columns and otherwise, his personal feeling in its welfare. We, therefore, in common with our numerous readers, deeply deplore the loss we have sustained by his death at the zenith of his reputation. Mr. Merryman was a philanthropist, an eminent farmer, a noble citizen, an exemplar for the rising generation, and in a word, a high-toned GENTLEMAN.

During his comparatively short career, he held high positions with credit to himself and to the entire satisfaction of the public.

The subject of this notice held many important political offices of honor and trust during his active life. He was President of the Board of County Commissioners, in 1858, was elected Treasurer of the State in 1870, and served in the Legislature of the State in 1874. In 1880, he made an extensive European tour. Mr. Merryman has always been devoted to agriculture, though engaged in politics, mercantile business, and a large manufacturer of fertilizers, having for the same an immense Southern trade. He died holding the office of President of the United States Agricultural Society, and for many years past was President of the Maryland State Agricultural Society, which position, on account of his illness he resigned, a few days before his death. At the time of his demise he was one of the trustees of Maryland Agricultural College, in which institution he took the deepest interest from its incipency. The deceased was ever on the alert and active in the promotion of every enterprise calculated to advance the happiness and welfare of his fellow-men, and the void caused by his early death will not be easily or soon filled.

The Virginia State Agricultural Society.

We regret to learn through the *Riligious Herald*, of Richmond, that this noble society is so much embarrassed pecuniarily, as to make it more than probable it will have to wind up its affairs. Its last meeting was disastrous owing to the Yorktown Centennial happening at the same time.

It is gratifying, however, that its assets will cover its indebtedness of some \$20,000. On this prompt the *Herald* says:

"We have no censorious criticism to make. We are fully satisfied that the executive Committee have done the best their circumstances allowed, and deserve praise for their heroic devotion to the waning fortunes of the Society. They hoped and were disappointed that the circumstances of this fair would make their receipts much larger than usual, and thus give the Society a new lease of life. 'Their offending hath this extent, no more.'

To borrow money to the extent of \$20,000 we think will be scarcely attempted. The Society will, in all probability sell its property, which is more than sufficient, however, to meet its indebtedness. It owns some 60 acres of land contiguous to the city, with many buildings, some of them valuable."

The *Herald* further says—as if "*misery loves company*," :—"There is scarcely a solvent State Agricultural Society in the Union. Some have disbanded, others are on their last legs. Disruption more or less speedy, probably awaits them all." And assigns as a reason that "the day of land-holders is going out; the day of small farms and yeoman farmers is coming in."

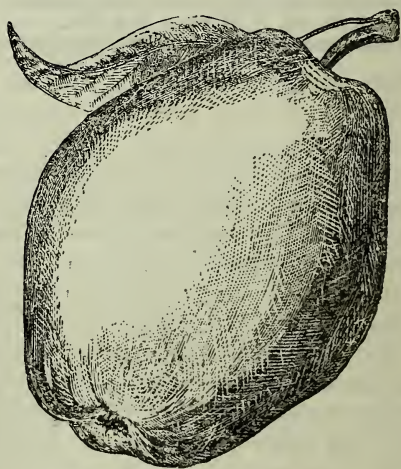
We differ with our respected contemporary. The State Agr'l Societies were never more flourishing in a great majority of the States, and we have reason to know that in those States and counties, where there are "most small farms and yeoman farmers," both State and county Societies are the most flourishing. Such is the case in Maryland, at least, and we believe also in the whole Union.

Failures in State Societies are generally owing to a mistaken policy in the small amount of monied premiums, the amount of paper diplomas and a niggardliness in the use of *printer's ink*. Advertisements and showy postals should be thick as the leaves in the valley of Vallombrosa, if a Fair is to draw a crowd.

HORTICULTURAL.

Kieffer's Hybrid Pear.

A new pear said to be a hybrid between the Bartlett and the Chinese Sand Pear. pronounced *blight proof* by a number of parties who have grown it for many years. It is a strong grower. It is immensely productive and begins to bear very early. Fruit large and handsome; flesh white, melting and juicy, with a rich aromatic flavor. It is undoubtedly one of the most valuable pears in cultivation.



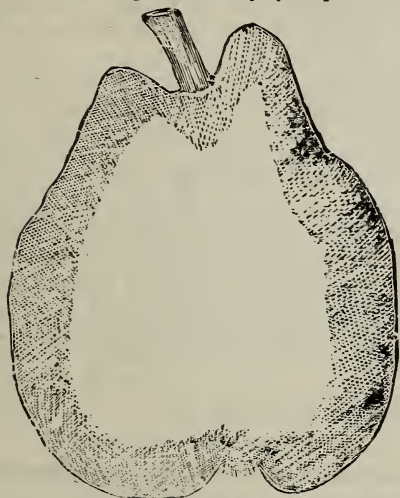
KIEFFER'S HYBRID PEAR.

Charles Downing in writing about this pear, says:—

"Kieffers Hybrid is of good quality, good size, deep yellow color, and orange yellow where exposed to the sun, ripening in October, and from what I have seen of it, is a promising variety for market, as well as for family use."

Champion Quince.

We give a cut of this quince, furnished us by Mr. H. S. Anderson, Union Springs, N. Y. This is a new variety originated in Connecticut. It is exciting marked attention. The largest variety yet produced;



CHAMPION QUINCE.

fruit fair, smooth and of the finest quality. Two weeks later than the Orange and a much better keeper. Fine specimens of it were shown at the meeting of the Western New York Horticultural Society, the last week in January. Tree, a vigorous grower, bears large crops annually, and comes into bearing at two and four years of age.

Mr. Anderson says his stock comes from the original tree in Fairfield county, Connecticut, and that he had last year specimens measuring over a foot in circumference and weighing 1 pound 2 ounces. This quince is rapidly growing is popular favor. Fruit growers should pay more attention to this beautiful fruit, as it always meets ready sales in the market at very remunerative prices.

Lydia E. Pinkham's vegetable compound has done thousands of women more good than the medicines of many doctors. It is a positive cure for all female complaints. Send to Mrs. Lydia E. Pinkham,

Chinese Primrose.

James Vick names the oxalis and the Chinese primrose as the two flowering plants that produce the greatest number of flowers in winter, and he gives as the reason why the latter is not more generally cultivated that it requires several months to bring a plant to perfection from seed. It should be sown at any time from February until the first of June, and if done at intervals the plants will bloom in succession. The best soil is made of fine loam and half as much leaf-mould, and enough of sharp sand to make it light and porous, the whole to be thoroughly intermixed. A five or six inch pot may be nearly filled, with coarse drainage at the bottom, and a layer of fine sand at the top. After a fine watering and draining, the seed is sown and covered very thinly with sand. A pane of glass laid on the top will hold the moisture, and the pot should then have light, but not sunshine, and a temperature of about 65°. If needed, water from below. The plants will appear in two weeks, and at the third leaf, remove them to other similar pots, covered as before. Avoid wetting the leaves. In a few weeks, transplant again, and give air under the pane. The single varieties do best in rooms.

Currants and Goosberries.

Should be planted in rows five feet apart and from three to five feet in the row, depending on the number of canes left in the hill. Prepare the ground as for raspberries, and plant cuttings or rooted plants. If cuttings, they should be made from the last year's growth, soon after the leaves have fallen, and if then put in the ground and well protected during the winter, will become calloused and frequently rooted, so that they may be put out in the Spring following. The currant is a gross feeder and will use to good advantage an abundant supply of manure. A heavy mulching should be applied each year and left on the ground to decay and fertilize it. From five to eight canes only should be left in a hill, and all superfluous sprouts should be removed. Occasional pruning of canes may be made, when they branch too much, and as the plantation attains age the old canes that have become enfeebled should be removed and their places supplied by young sprouts. —*Farmer's Union.*

For the Maryland Farmer.

Small Fruits for the Market and Garden.

It is strange how the average farmer can go, year after year, without the luxury of small fruits in the family garden, when they can be had for so little outlay and trouble; he contents himself (or pretends to,) with his bacon, cabbage and greens, and looks upon the growing of small fruits as so much "small nonsense" not worth either his time or attention. This is a grave error into which too many fall. No fruit is easier raised than the strawberry, raspberry or grape, and none more luscious or health-giving. It has been clearly demonstrated by the learned medical faculty of the day, that fruit is nature's medicine for renovating the system and warding off disease. It is claimed further that each fruit in its season has its own work appointed in this line. Aside from viewing this subject from a hygienic point of view, the pleasure of cultivating and enjoying such luxuries more than pays for the trouble entailed.

Let us take strawberries, for instance, of which Roe enthusiastically speaks as the "finest fruit God ever made." The time was when this fruit grew wild, and in such abundance as to render their cultivation almost unnecessary; but from some mysterious cause the wild ones have nearly disappeared except in some few localities, besides this there has been such a marked improvement both in size and flavor that the wild strawberry is no longer sought for as formerly. We consider that no family garden is complete without this fruit, and yet how few have them. Living, as I do, in the great strawberry district of Anne Arundel, and accustomed to enjoying this fruit in abundance, I have been surprised upon going into other neighborhoods and seeing persons doing without it upon their tables, upon remarking this to one of them lately, his reply was that he didn't miss them, but we don't believe him since we witnessed his onslaught on our patch when we turned him loose into it. Most persons have an idea that they are very difficult to grow, and plead this for an excuse. Some time back in their experience they have perhaps planted a bed and left it to unequal battle with weeds and grass, such treatment has caused the beds to somehow disappear from the garden after a year or two,

and they have been given up in despair. But even this may, in a measure, be overcome, for while most sorts require clean culture and careful attention to be kept up, some others, like the Chas. Downing and Crescent seedling, if once well established, will hold their own against most grasses and weeds and continue in bearing for many years without any attention. The same may be said of most sort of raspberries, if well cultivated the first season, they continue bearing for a long time, requiring only a few hoeings and plowings between the rows in order to keep down weeds and superabundant suckers. As a market fruit we know of nothing that pays better than the fruits described. Persons having but small places near good markets can realize more from an acre well cared for, than anything we know of. Nothing gives better returns for care taken of them, and they may be grown upon any soil that will bring good corn.

Yours respectfully,

R. S. COLE.

Harman's, A. A. Co., Md.

Notice.—According to our custom we enclose bills in our December number as a reminder to our subscribers of the small amount due by each one to us. Every reflective reader will see that while the amount due by one is a trifle, yet it is a great consideration to us, when these small sums are aggregated by hundreds—"large streams from little fountains flow." Therefore we appeal to our subscribers to punctually pay up arrears and renew for the coming year. By so doing we shall be encouraged to continue to make the Farmer progressive as heretofore, and worth many times more than its cost to every household it may visit during 1882.

Thousands of women have been entirely cured of the most stubborn cases of female weakness by the use of Lydia E. Pinkham's Vegetable Compound. Send to Mrs. Lydia E. Pinkham, 233 Western Avenue, Lynn, Mass., for pamphlets.

If your horse has a spavin, use Kendall's Spavin Cure.—See advertisement,

Progressive Bee Culture.

The following is the interesting address of Mr. Thomas G. Newman, editor of the *Chicago Bee Journal*, before the North American Bee-Keeper's Convention, lately held at Lexington, Ky, for which he was complimented with a rising vote of thanks. He said:

"This subject is one of immense magnitude, and I must content myself with the mere outline of thought, allowing those present to fill out the figure, and dress it up to suit their own fancy.

"Scientific apiculture in its fullness and perfection, stands out to view as a great mountain, whose sides apparently forbade the approach of man, but whose top presented tantalizing to view the beauty of perfection, the sublimity of the complete control of the honey bee, and the full development of scientific management of the apiary—a 'land flowing with milk and honey,' furnishing God-given sweetness to all the nations of the world as a staple product, with a commercial value like butter, cheese and sugar.

"How to ascend this mountain and plant our feet upon this glorious summit, is the all-important question. Talk not to me of impossibilities—my faith in the ultimate triumph of scientific apiculture is progressive, it

*'Laughs at impossibilities,
And cries—It shall be done.'*

"When Frederick Winslow proposed, less than 100 years ago, to light London with gas, James Watt, Walter Scott and other great men laughed at the idea, but see to-day the wonderful illumination of ten thousand times ten thousand cities with gas!

When Fulton proposed to run a steamboat up the Hudson river, men scoffed at the idea, but the millions of steamboat palaces and drawing-room cars, drawn by ponderous engines over land and ocean, demonstrates grand accomplishments for steam.

"The electric light, so much ridiculed for years, now rivals the sun and pales the very moon and stars with its brilliance!

"In the misty ages of the past, the grand 'mount of transfiguration' we have just caught a glimpse of, was enveloped in clouds and thick darkness; the ancients

saw apiculture only in its crude state 'this treasure they had in earthen vessels,' in the time of Abraham and Samson. Greek and Roman poets and sages caught only a glimpse of the glorious fruition, and then the world went into the depths of mire. Ignorance and superstition reigned supreme until the days of Huber, Bevan, Dzierzion, and Berlepsch, who cleared away much of the rubbish around the base of the mountain—laying bare the rock on which to build the mighty stairway leading to its glorious summit.

"Thereon was built the first step by that intellectual giant, whose name every true American honors—the Rev. L. L. Langstroth. The step consisted in adapting the movable comb principle to his bee-hive, revealing the 'mysteries' therein and revolutionizing old theories.

"Then, with great rapidity, step after step was built. In order to fully record this great rival to 'Jacob's ladder,' let us number and describe each step, so that the 'generations yet unborn' may treasure up in history every step in the grand stairway, reared by the men of our days by indomitable energy and inventive genius.

"Step No. 2 consisted in the multiplication of bee books and bee papers, scattering information like autumn leaves, awakening scientific investigation and inviting inventions to aid in the scientific management of the apiary.

"Step No. 3 called the bee lovers together in conventions, developing the best thoughts and the most advanced ideas of those devoted to this industry.

"Step No. 4 was the importation of Italian bees, placing the possibilities of improvement within our grasp.

"Step No. 5 showed us how to Italianize our apiaries, rear and ship the new bees, and thus spread them all over the continent.

"Step No. 6 taught the increase of colonies by division instead of swarming.

"Step No. 7 brought to our astonished view the possibilities of making a staple article of honey, giving us the honey extractor by which to obtain the honey by centrifugal force.

"Step No. 8 gave us the means of uncapping the combs before extracting the honey, and saving them for future use by the aid of an uncapping knife.

"Step No. 9 reassured our nerves by giving us a bellows smoker with which to

control the bees during our manipulation of them without danger of being stung.

"Step No. 10 presented to our astonished vision, sheets of wax, afterwards corrugated and called 'comb foundation,' to aid the bees in multiplying their numbers and obtaining large yields of honey, by providing room to receive the sweet nectar in the shortest period of time, as well as to control the productions of drones.

"Step No. 11 gave us magnificently thin comb foundation, to be used in comb honey, giving it strength to endure transportation and aid in its production.

"Step No. 12 presented us with single comb sections to facilitate the building of straight combs, and add to their beauty, facilitate their division and increase their market value.

"Step No. 13 showed us how to improve the race of bees by constant selection and experiments, breeding IN the traits of character desired, or breeding OUT the undesirable ones.

"Step No. 14 consisted in popularizing the consumption of honey, and creating a demand for it among the masses.

"Step No. 15 sought out a foreign outlet for honey, thereby creating a valuable market for all our surplus crops.

"Step No. 16 gave us many improvements in marketing jars, cans, kegs, sections, crates, etc., thereby adding to the value of the bee interests.

"Step No. 17, developed shows for bees and honey presented an opportunity for good natured rivalry and raised the standard of the 'ideal.'

"Step No. 18 consisted in planting for honey bloom, to give a continuous yield of nectar for our bees to gather, from early in the spring till late in the fall.

"Step No. 19 showed us how to make honey a staple article—giving market quotations, estimating the crops and regulating the prices for it all over the country.

"Step No. 20—This consists in the development of practical plans for wintering our bees.

This is the 'next progressive step'—the last problem to be solved, but profound thoughts of the wise, and the patient experiments of practical men will speedily accomplish it.

From the place we occupy, we catch, now and then, a glimpse of the glorious fulfillment of our expectations!

"Oh! the transporting, rapturous scene
That rises to our sight!
*Sweet fields arrayed in living green,
And rivers of delight!
There generous bloom in all the dales
And mountain sides will grow,
There rocks and hills, and brooks and vales
With milk and honey flow."*

Is there anything to discourage us in our work? No; all looks encouraging. With steady hands and iron nerves, let us near the top stone in the 'grane stairway,' completing our work, and giving us the possession of that for which we have so long wrought. And while we place in proper position 'the cap stone,' of the grand structure, let the wondering and admiring people rejoice with the greatest joy!

Our Appeal to Old Subscribers.

May we not earnestly appeal to every lady and gentleman who takes the Maryland Farmer, to use their influence, each one, to get one or more subscribers to join them in ordering the farmer for the next year. A few moments devoted to this good work would double our already large list, and empower us to go on improving the appearance and the subject-matter of our journal, by large expenditures in embellishment and procuring the ablest and most practical writers of the day. We here acknowledge with thanks the many cheering commendations bestowed upon our past efforts by both the press and individuals. We pledge ourselves to use our best endeavors to merit in the future the public patronage and praise.

When certain powers are claimed for an article, and everybody testifies that it does more than is claimed for it, to gainsay its worth is useless. This is the substance of the St. Jacobs Oil Record.—*South Bend Evening Register.*

WOMEN are everywhere using and recommending Parker's Ginger Tonic, because they have learned from experience that it speedily overcomes despondency, indigestion, pain or weakness in the back and kidneys, and other troubles peculiar to the sex.—*Home Journal.* See advertisement.

LADIES' DEPARTMENT.

Chats with the Ladies for December.

BY PATUXENT PLANTER.

"Now Christmas is come
 Let us beat up the drum,
 And call all our neighbors together:
 And when they appear,
 Let us make such a cheer,
 As will keep out the wind and the weather."

At this merry season let us all be thankful to a kind Providence for all the blessings we enjoy and be ready to say in our hearts:

"Lord, 'tis thy plenty-dropping hand
 That soiles my land,
 And giv'st me for my bushell sowne
 Twice ten for one."

Nor must we forget the old and happy couplet,

At Christmas be merry, and *thankful withal*,
 And feast thy poor neighbors, the great with the small.

This is written long before the great Festival arrives, but not before it is time to prepare for our little gifts of remembrance on this grand old festivity. Begin now the preparation for useful gifts for the poor and little tokens of affection for our kinsmen and friends. Is there one whom I address whose heart has not throbbled with pleasure, or whose sorrows have not been melowed, or whose joys have not been heightened at this time of the dying year, by the unexpected reception of a kindly note of remembrance, a trifling present or a substantial gift—a trifle or treasure—a simple reminder of the past or a real comfort for future hours of remembrance of the thoughtful kindness of the donor.

At Christmas let us all remember our absent ones and send them some love token that they are "tho' absent still to memory dear." And above all, oh! pray do not let a single one forget the poor. With what joy some poor woman or man will greet the gift of a pair of gloves, a little good dinner, a small amount of fuel, a blanket or coat, or even a slice of cake of which perhaps the giver may have an abundance. How often have I seen a poor, ill-clad child made glad by the gift of a trifling toy, or an apple or orange. Even for such a trifle the eye would glisten, the whole face illumine with the bright sparkle of delight and gratitude. To such givers the joys are greater in reality than those felt by the recipient. It has been truly said that "to the wise a word is sufficient," and I will say no more about the joy—the wisdom—the necessity of generosity at Christmas time. Let everyone be generous and charitable according to their means, but not ostentatiously, like some who give for the sake of

self-renown a sum beyond their means, and to make it up, crimp and deprive their own households of real comfort and perhaps necessary enjoyment, or like the fair sellers of lottery tickets at a charity fair. This is not the truly religious sort of charity or kind feeling I advocate. The one, I admire; the other, I do not. Perhaps I have said more than I should. At any rate, let me implore you to look after the poor and remember them with some act of useful charity. Be thoughtful of your poor relatives and remember by some love token—a card—a picture—a letter or what-not, so it be something to recall to absent ones the love that is still burning as a never dying lamp in your bosoms, always the brighter at the recurrence of this holy and glorious anniversary of our Saviour's birth.

Since our last chat, the national holiday—Thanksgiving—has occurred. Not many years since it was confined to New England, but now it has become national, and South and West join in the keeping of it with the North. It is well. As a Christian people we should have some day set apart when all classes and ages should in their hearts return thanks to the great Giver of all Good, for our exceptionable blessings as a nation and our unparalleled prosperity as a people. When families should meet and renew vows of affection and fraternal love. This day, too, has become one appropriate to the giving and receiving mutual greetings and little gifts of remembrance and tokens of love. To show how pleasant such evidences of esteem and kindness are, I cannot but here allude to that in which I was the recipient. My Thanksgiving table was graced with, and my friends enjoyed two splendid dishes, such as every farmer should have on his boards on all special occasions. Through the thoughtful kindness of the liberal owner of Poplar Stock Grove Farm, of Queen Anne's Co., Md., we had a superb haunch of Cotswold mutton, and

"Never finer or fatter,
 Smoked on a platter"

And a ham of Berkshire breed, cured in the old Maryland style, which is saying that it was neither too fat nor too lean, all marbled flesh, rich and juicy, and such as would have stopped Macarius the Anchorite from his religious duties, until he had tasted and tasted again. Of course, each partaker of these substantial gifts offered up a heartfelt *thanksgiving* to the generous friend whose absence was deplored but whose kindness was embalmed in discreet libations of the rosy fluid that "makes the heart of man glad."

In alluding to Thanksgiving Day, allow me to recall the beautiful scene in Dr. Holland's sweet,

pastoral poem—BITTER-SWEET—in which he describes the gathering of a family at the old homestead of a Puritan farmer on the eve of Thanksgiving

"Who are these fathers? who these mothers? who
These pleasant children, rude with health and joy?
It is the Puritan's Thanksgiving Eve;
And gathered home from fresher homes around,
The old man's children keep holiday—
In dear New England, since the fathers slept,
The sweetest holiday of all the year.
John comes with Prudence and her little girls;
And Peter, matched with Patience, brings his
boys—

Fair boys and girls, with good Scripture names,
Joseph, Rebecca, Paul and Samuel;
And Grace, young Ruth's companion in the
house,

Till wrested from her, last Thanksgiving Day
By the strong hand of Love, brings her babe
And the tall poet, David, at whose side
She went away. And seated in the midst,
Mary, a foster-daughter of the house;
Of alien blood, self-aliened many a year—
Whose chastened face and melancholy eyes
Bring all the wondering children to her knee,
Weeps with strange excess of happiness,
And sighs with joy."

For the Maryland Farmer.

Hints about Housekeeping.

BEDS, ETC.

Delightful summer beds may be made of *corn husks*, saved from "roasting ears," or the inner, white husks from ripe corn, stripped into fine shreds with hackles made of sharpend nails, driven through a bit of board which is nailed to a heavy block. The husks should be left attached to a bit of stalk. A handful can then be stripped at once and the work done very rapidly. They are much nicer this way than when cut cross-wise. Pillows made of them are especially pleasant in hot weather. Very good "comforts" may be made of old woolen garments. Wash clean, and rip or cut them up, leaving out all thick seams. Spread down one side of calico, lay on the pieces of all shapes, placing them so they will join neatly. Catch them together with coarse thread and long stitches; put on another thickness, if desired. Spread on the other side calico, stretch in the quilting frames and quilt rather more closely than if wadded with cotton. The very nicest comforts are made of wool, well carded. For covering, use glazed calico to keep out moths. These covers will last for years if made of good material. Comforts made of goose down or feathers are best for invalids, to whom the weight of ordinary bed covering is oppressive.

ODDS AND ENDS.

Never leave a spoon in anything required to boil quickly. The spoon conducts heat away from the liquid. Leaving the spoon in will prevent the liquid from going over unless it is boiled very violently. To boil milk or make custard, always set the pan of milk in a vessel of water that is kept boiling. A greater degree of heat can be obtained by setting the vessel in boiling brine. If the vessel to be used in cooking milk be rubbed with a little butter or a bit of nice fat ham, the milk will not stick near so badly and the vessel be much more easily washed.

Never pour cold water into hot vessels of any material. In putting hot fruit into glass jars, have the jars hot and set in a pan of hot water, or on a cloth lifted out of hot water. A small tin ladle or dipper is a good thing to use to put fruit in jars. A strong, three-pronged fork is the best potato masher.

The idea that eggs and cake must be beaten only one way, and that cream must never be churned backwards, is only a "notion," as I have done the opposite dozens of times without the least, perceptible difference in the result.

Mashed potatoes for frying will turn out of the plate if it is wet with cold water, and the potatoes pressed smoothly into it. In frying bread, mush or potatoes, sprinkle well with flour and they will fry much more quickly and nicely than without.

Put up preserved and canned tomatoes of the first that ripen. The later they ripen, the more acid and watery they become.

If the oil for the sewing machine gives out, coal oil answers very well in place of it.

Always use woolen yarn to tie rags on wounded fingers, &c. Keep a clock and a looking-glass in the kitchen, but do not suffer a brush or comb to enter therein. Keep a pot of hot water always on the stove when there are little children in the family.

WASHING AND IRONING.

Every housekeeper and every washwoman has her own way of washing, and generally a very "set" way; so it will avail little to say much on that head. If it could be so arranged, the custom prevailing in parts of Germany would be a good one to adopt. There, the washing is done but twice a year. Linen is used for all under-clothing, sheets, &c., and each household has a bountiful supply. As the soiled articles accumulate they are thoroughly dried and aired, then hung on lines in the garret. When washing-day comes the whole family turn out and make a jollification of it. They take the great baskets

of linen to the meadows, where a fire is made for the boiling. All hands "turn to," the men carry water and lend a hand generally. The women wash, and the clothes are spread on the grass to bleach and dry. In two or three days the six month's wash is finished. The clothes may be ironed at pleasure. With certain modifications to suit circumstances, this plan would certainly be a great relief. The weekly washday is a nuisance though its labor is somewhat lessened by washing machines, wringers, fluids, labor-saving soaps, &c. The follow recipes are of approved excellence.

WASHING COMPOUND,

Concentrated Potash.....	1 lb.
Sal Soda.....	1 lb.
Borax.....	$\frac{1}{2}$ lb.
Rosin.....	$\frac{1}{2}$ lb.
Spirits Ammonia.....	2 oz.
Grease.....	3 lb.

Put the potash and soda into three gallons of water, till dissolved, then add the grease; boil from one to six hours. keep about the same quantity of water in the kettle as at first. After it becomes soap add the borax and rosin, (the rosin should be separately melted in a little hot water,) and just before taking from the fire put in the ammonia. Pour into the barrel and add nine gallons cold water; stir well and frequently. When cold it will be beautiful white soap and is especially nice for flannels and calicos.

BRITISH ENAMEL—Melt together with a gentle heat, one ounce white wax and two ounces spermaceti. To sufficient starch for a dozen shirts, add a bit of the enamel the size of a large pea. For a larger starching in proportion.

LIQUID BLUEING.—Best Russian blue, one ounce; Oxalic acid, half an ounce. Put into a quart of water; shake occasionally till dissolved. This will be found very convenient.

IRONING.—A good sized blanket with clean sheet tacked on it; a board covered with blanket and sheet, for ironing shirts; a small board similarly covered for ironing bosoms; good iron holders and stands; clean cloths for wiping irons; a bit of wax to rub on the irons to smooth them; several thicknesses of brown paper on which to rub them when waxed; a knife to scrape starch from them, and white cloths to use in wiping off any specks that may stick to the starched articles are absolute indispensables to the nice ironing of nice clothes. When sprinkling and folding clothes for ironing, wring shirt-bosoms, cuffs and collars out of a little thin starch, instead of sprinkling them. Lay a dry cloth over and rub over with the iron to dry enough to prevent sticking. As collars and cuffs are ironed, turn

down ready for wearing and fasten the ends together with pins. This shapes them nicely for neck and wrists.

TO WASH FLANNELS—Make a suds of nice soap as hot as the hands can bear. Put in the flannels and rub them well, using plenty of soap. Squeeze out all the water possible; lay them in a clean tub and pour on boiling water till they are covered. Let them stand till the hands can be borne in the water. Squeeze them out and rinse in hot water, in which put a little blueing and scented soap. Stretch well in hanging out do not let flannels freeze in drying.

For the Maryland Farmer.

Lady's Work for Winter—Swine Raising— and the "Chats."

As the editor of the *Farmer* remarks—"This has been an eccentric year," and with me it has been a calamitous year. First, I had my ribs broken by a sheep. Second, I lost a fine colt. Third, my wheat ricks were burnt by an incendiary. Fourth, the heat killed one of my best cows. Fifth, my cabbage were destroyed by worms. Sixth, corn and potatoes short. Seventh, from over-exertion, trying to retrieve losses, I have been sick and unable to write my promised letters on housekeeping. If Mrs. M. A. G. would continue her letters on household matters I think they would be of more value than mine.

In this immediate section we have had due rain, up to the 7th of August, since then it has been hot and dry. I have put in another wheat crop, and hope I may be more fortunate than I was with my last.

The cold winter is coming and I will tell the ladies how I passed part of my time last winter. I pieced the strips for a carpet; it has just come home from the loom, and is a well woven and pretty carpet. The warp is of bright blue—the larger stripes are clouded by piecing a variety of colors into one ball. The smaller stripes are old gold color, edged by black and red. The old gold was dyed with copperas and lye, and the rags were cotton. The black was dyed with extract of logwood, and the red with madder and alum, the rags were woolen.

I do hope the ladies will continue writing, I always look at the "Chats" first, leaving the more weighty subjects until I have ample time to note and profit by them.

In swine raising I have been successful, and I prefer a cross between the Poland China and Essex, which gives size and flesh. I have never had any disease amongst my swine. I generally

have about thirty, and they range on clover in summer—during the autumn they have an extensive forest to pick up acorns in. The whole year they are fed twice a day with swill, and during the winter months have, in addition, a feed of corn.

LADY FARMER.

Fairfax Co., Va.

Poplar Grove Short Horns:

List of awards made at Fairs to E. B. Emory, on Short-horns.

DOVER, DELAWARE.

Mr. E. exhibited at eight fairs and won every Herd prize except at Dover, here quantity, not quality received the 1st herd prize; Mr. Ross, of Delaware, having a greater number of grades than Mr. Emory had thoroughbreds.

1st Prize, best cow, Lady Languish.

" " 2 year old heifer, Miss Renick Rosette 3d.

" " 1 yr heifer, Countess of Clarence.

2nd Largest Herd Prize.

2nd Prize bull, Kirklevington Lad.

" " 2 year heifer, Miss Renick Royal.

ELETON, MARYLAND.

1st Herd Prize.

" Prize, best cow, Princess of Oxford, 10th.

" " 2 year heifer, Miss Renick Rosette 3rd.

2nd " Kirklevington Lad, (bull.)

" " Miss Renick Royal.

BEL-AIR, MARYLAND.

1st Herd Prize.

1st Prize, best bull, Emory's Roan Duke.

1st Prize, best cow, Lady Languish.

WASHINGTON, D. C.

1st Prize, 2 year bull, Kirklevington Lad.

1st Herd Prize, to—

Kirklevington Lad.

Miss Renick Royalty.

Miss Renick Noxubee 3d.

Miss Renick Royal.

Miss Renick Rosette 3d.

PIMLICO, MARYLAND.

1st Prize, Best Herd.

" " 3 yr bull, Emory's Roan Duke.

" " 2 yr " Kirklevington Lad.

" " best cow, Miss Renick Royalty.

" " 2 yr heifer, Miss Renick Rosette 3d.

Mr. Emory had no calves on exhibition but can show some good ones at Poplar Grove.

It will be seen by reference to the advertisement in this issue of Mr. A. M. Fulford, of Bel-Air Md., that he offers two prize winning boars in his splendid herd of Berkshire swine, for sale.

"BITTER-SWEET," "TITCOMB'S LETTERS," and "GOLD FOIL."—Three volumes of the Charles Scribner's and Sons Re-issue of the complete writings of Dr. J. Holland, revised by the author before his death. We are indebted for these beautiful volumes to Messrs. Cushing & Bailey, of Baltimore, who have them for sale. Price \$1.25 each volume. The name of the author is sufficient to recommend these books to those who have never yet been charmed by their perusal as thousands have been in years gone by. They singly or collectively will make appropriate presents for Christmas and furnish choice reading for the holidays—"Bitter-Sweet," is a beautiful poem.

THE benefit of advertising in the *Maryland Farmer*, is shown by a letter lately received from Mr. Beck, enclosing payment for his advertisement, stating that he has lately delivered 8 of his Poland China pigs and engaged 33 for future delivery. He closes his letter by saying: "*The Maryland Farmer is a good medium for advertising in my line.*" Mr. Beck has commenced a herd of Devon cattle by the purchase of cow Rena 3rd, 2263—Rena 7th, 2366, and a half interest in bull Bar-Bodine, 1873. From these he hopes, and we doubt not, will build up a fine herd of this beautiful and useful breed of cattle.

TO BEE-KEEPERS.—Those who wish information upon this subject, or wish to improve their bee stock, or purchase Italian Queen Bees, should correspond directly with Mr. J. Luther Bowers, of Berryville, Clarke County, Va. See his advertisement in this number.

If you begin pruning fruit and ornamental trees and shrubbery while young, and follow it up each year, you can form just such a top as you want. If your tree needs spreading out, cut the young shoots off just above a bud on the outside of the shoot; and if you want to train upward, leave a bud on the upper side of the limb where you cut it off.—*Farmers' Advocate.*